



Public Utilities

FORTNIGHTLY



August 13, 1936

**OWNERSHIP, MANAGEMENT, AND REGULATION
OF THE GERMAN PUBLIC UTILITIES**

By Thatcher C. Jones and Kimon A. Doukas

« »

**The Growing Tendency toward Strait-jacket
Regulation**

By H. O. Weaver

« »

**A Model State Commission for Utility Regulation
No. 1**

By Laurence E. Baty

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CONSTRUCTION WORK PROVES ECONOMY OF NEW TIRE FOR UTILITY SERVICE

Now you can get a tire built especially to stand up on the toughest hauling jobs. The new Triple Protected Silvertown is the tire that ends worries about sidewall breaks.

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For information on any tire problem write The B. F. Goodrich Co., Akron, Ohio

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Contributing Editor—OWEN ELY

Public Utilities Fortnightly



VOLUME XVIII

August 13, 1936

NUMBER 4

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P This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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Pages with the Editors

THE good-natured rivalry between the Texas cities of Fort Worth and Dallas in operating their respective expositions in celebration of the Texas Centennial is probably responsible for the tale about the delegation of Dallas men who showed up in Fort Worth one day recently and asked to be allowed to study, first-hand, the administration methods employed in running the Fort Worth show.

FORT Worth officials were much impressed by the fact that the Dallas delegation had made the trip ostensibly to observe a model. Permission was granted but one Fort Worth official could not resist the temptation to say, as the Dallas men were leaving,

"WELL since you came to learn, I hope you now know how an exposition should be operated."

"Who said anything about wanting to know how an exposition should be operated," snapped a Dallas man. "We knew that already. We came to find out what should be avoided."

WELL, change the story around if you are partial to Fort Worth. (We're neutral.) It does suggest, however, that so-called "study trips" can be undertaken just as profitably for purposes of observing a "horrible example" as for checking up on claimed perfection. And there seems a good deal of it going on lately.



KIMON A. DOUKAS

Political expedience dominates utility regulation in Germany.

(SEE PAGE 171)



THATCHER C. JONES

He finds German utility practice interesting if not imitable.

(SEE PAGE 171)

Only a few weeks ago President Roosevelt sent a delegation over to observe the excellencies (or otherwise), of the cooperative movements in Sweden and England. Next month representatives from various foreign countries to the Third World Power Conference will be touring all over America picking our methods to pieces.

JUST to be "in the swim," the editors of PUBLIC UTILITIES FORTNIGHTLY decided on a little literary junket of its own into the realm of Naziland to find out something about regulation and ownership of public utilities in the Reich. It might seem a paradox worthy of the late G. K. Chesterton that folks in the United States should pick out, for study of European methods, the very time when all Europe seems about to go to pieces by reason of political explosions. However, remembering the Dallas-Fort Worth story, we might find something worth avoiding even if we find nothing worth imitating.

THE joint authors of our article on German utilities (beginning page 171 of this issue) are DR. THATCHER C. JONES and DR. KIMON A. DOUKAS. DR. JONES (New York University M.C.S. '17; Columbia University A.M. '24; Ph.D. '31) is a recognized authority on the theory and practice of economics and finance, with particular reference to utilities. He has for a number of years been a member

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H. O. WEAVER

That regulation is best which regulates least.

(SEE PAGE 181)

of the faculty of New York University, Graduate School of Business Administration. He is the directing economist of the Independence Fund of North America, Inc., and a member of the Academy of Political Science and other similar groups.

Dr. DOUKAS has had the benefit of a remarkably international type of education. He graduated as Bachelor of Science from Columbia University in 1926 and a Doctor of Jurisprudence from New York University in 1930. In addition, however, he has attended the law schools of the National University of Athens, Greece, and the University of Marseilles, in France. He has, in collaboration with Dr. JONES, made a comprehensive study on legal and economic aspects of public utilities in the United States and throughout European countries.

"CONSIDER carefully those who bemoan the alleged fact that utility regulation has not succeeded," said a prominent authority on that subject recently, "and you will frequently find that the critic is one who has no sympathy with regulation, does not wish it to succeed, and who, if placed in a responsible position, would do everything in his power to make it fail. Commission regulation can surely still stand improvement but hardly by those who would junk it in favor of public ownership."

IN this issue (beginning page 181) we have an article by H. O. WEAVER which expresses a viewpoint on utility regulation that is rarely heard these days. We hear so often that regulation has "broken down" because it is inadequate, does not go far enough, and so forth. Mr. WEAVER takes the position, how-



LAURENCE E. BATY

He describes a model public service commission.

(SEE PAGE 187)

ever, that if regulation fails it will be because it has gone too far and has strangled industry by usurping management without assuming responsibility of ownership.

Mr. WEAVER was for many years an assistant to George B. Cortelyou, retired president of the Consolidated Gas Company of New York (now the Consolidated Edison Company). The author is now attached to the office of O. H. Fogg, executive vice president of the same company. During his period of practical and first-hand experience with regulation, Mr. WEAVER has been impressed with what he believes is the unwarranted encroachment by regulation on the field of utility management.

Our concluding article in this issue (beginning page 187) is on the subject of a model public service commission. The author, LAURENCE E. BATY, was born and educated in Topeka, Kansas. Graduating from the Kansas State College in 1929, Mr. BATY, who previously had some practical engineering experience, took a post on the engineering staff of the Missouri Public Service Commission, specializing in inventories. He is now employed in the Salt Lake division of the Utah Power & Light Company.

THE next number of this magazine will be out August 27th.

The Editors

A fresh approach
TO THE PUBLIC UTILITY
SALES PROBLEM



A PUBLIC UTILITY
SALES PROGRAM

NEW 45-PAGE BOOK SENT FREE TO SALES EXECUTIVES

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... how to determine exactly what kind of job each salesman is doing ... how to be sure of your market analysis ... and even how to successfully promote dealer co-operation. In all "A Public Utility Sales Program" consists of 45 plainly typed pages of suggestions on all phases of utility sales activity. It should be read by every major utility

sales executive. A copy will be put in your hands upon request and with no obligation. Merely write, giving your position, to Remington Rand, Buffalo, N. Y.

OK...it's from
Remington Rand

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News throughout the states.

REPRINTS FROM PUBLIC UTILITIES REPORTS

Various regulatory rulings by courts and commissions reported in full text, pages 113-172, from 14 P.U.R.(N.S.)



New Heavy Duty a-c Circuit Breakers

ADJACENT SWITCH ELEMENTS
CARRY CURRENT OF
DIFFERENT PHASES

Arrangement of switch elements avoids large voltage drop caused by skin effect;
reduces localized heating;
raises safe carrying capacities;
simplifies connection with interlaced bus bars.

Fig. 1

In new heavy duty a-c circuit breakers, developed and patented by I-T-E engineers, switch members carrying current of like phase are spaced far enough apart to minimize skin effect.

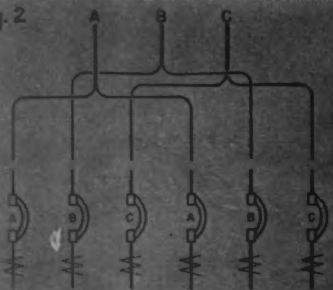
In the circuit breaker illustrated, the distance between switch members of like phase is that between bridges A and A; Fig. 2. Intervening space is safely utilized by switch members carrying phases B and C, since adjacent currents of different phase cause little trouble.

Unequal current distribution is avoided so that the temperature rise in contacts and bus bars is equalized. This makes possible a more economic use of copper. Inductive heating in nearby steel structure is greatly reduced.

The same advantages are to be gained when switch members of like phase are separated vertically.

The low reactance inherent in this type of construction is particularly advantageous in low voltage systems . . . for example in electric furnace installations.

Fig. 2



In addition to showing one plan for locating and connecting switch members, this diagram indicates that bus bars may be separated and interposed in a like manner. The advantages of separating bus bars in this way, for as much of the run as possible, are well established.

Further information, either general or concerned with specific application for currents of the order of several thousand amperes, will be furnished by I-T-E engineers. Refer to Interposed Construction Type LG.

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Remarkable Remarks

"There never was in the world two opinions alike."

—MONTAIGNE

JOSEPH A. GAVAGAN
*United States Representative
from New York.*

"No man, living or dead, can tell what the Senate may do."

MRS. GEORGE WYETH
*Republican leader of
New York State.*

"Can you get social security from a government which cannot keep itself solvent?"

DANIEL WEBSTER HOAN
*Socialist mayor of
Milwaukee, Wis.*

"The Socialists commend such socialistic things as the TVA—they are permanent improvements."

WALTER LIPPMANN
Political analyst.

"If the professors try to run the government, we shall end by having the government run the professors."

CARTER GLASS
*United States Senator
from Virginia.*

"I submit that there is no more damaging species of tyranny than that of taxing the many for the benefit of the few."

SIEGFRIED HARTMAN
*New York corporation
attorney.*

"If Federal regulation is necessary and can be justified legally, let us have regulation by law and not by men before the law."

CHARLES H. MEYER
Attorney.

"Purchases and sales by true investors are too infrequent to establish a (security) market in which buyers and sellers are present at all times."

REPORT OF FEDERAL POWER
COMMISSION
Electric Rate Survey—No. 5.

"The total taxes paid by the (1,216) reporting private electric utilities in 1933 amounted to \$206,988,870. In 1934 the total taxes paid by those utilities increased to \$239,733,260 and constituted 14.1 per cent of the total base revenues. In 1933 state and local taxes comprised 72.1 per cent of the total taxes paid by these utilities, or 9 per cent of the total base revenues."

WENDELL L. WILLKIE
*President, The Commonwealth &
Southern Corporation.*

"Why not ask the next self-proclaimed lover of the people who tells you of his advocacy of the spending of hundreds of millions of dollars of the taxpayers' money with which to duplicate the electric utility industry, why he does not devote his time to reducing the cost of government 6½ per cent so that you can thus save the full amount of your electric bill?"

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HENRY ADAMS

*Statement made during election
year of 1888.*

"Next summer I am intending a trip to the Fiji Islands, where they eat missionaries and where they may eat me, but at least will not elect a President."

WILLIAM C. BULLITT

U. S. Ambassador to Russia.

"To preserve the liberties our forefathers won, to attack and defeat any new fear which may arise from the chances and changes of life, is the duty of our generation."

HENRY ELLENBOGEN

*United States Representative
from Pennsylvania.*

"While home owners and farmers are taxed for the cost of government, the utilities, through their control of state and local governments, have escaped payment of taxes."

FRANKLIN D. ROOSEVELT

*President of the
United States.*

"I couldn't tell you today the party affiliations of probably the majority of people holding responsible positions in Washington, and it is a mighty good thing that I cannot."

H. I. PHILLIPS

Newspaper columnist.

"Now we have a streamline telephone. It enables you to ask for one number and get something else in half the time and speeds up the process of picking up the phone and having somebody ask if you are Plotzbaum's Fish Market."

FLOYD B. OLSON

Governor of Minnesota.

"I am pleased to urge that the people of Minnesota join in the observance of railroad week and that they inform themselves in every convenient way of the progressive means for public service initiated by America's pioneering industry."

COLBY M. CHESTER

*Chairman, General Foods
Corporation.*

"Business management is suffering under a barrage of indictment and misinformation, which does less hurt to management than to all those groups, including the educational institutions which derive their support from industry and business men."

C. W. KELLOGG

*Chairman of the Board, Engineers
Public Service Company.*

"High investment ratio is one of the fundamental factors that makes the utilities a natural monopoly since investors would not dare to risk so much capital on a competitive venture, and has logically led to public regulation for the protection of investors and consumers."

MILTON L. HALTEMAN

Philadelphia merchant.

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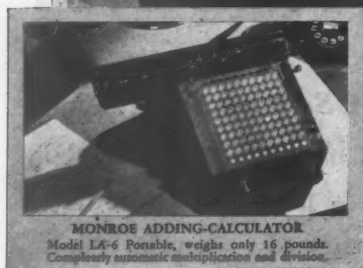
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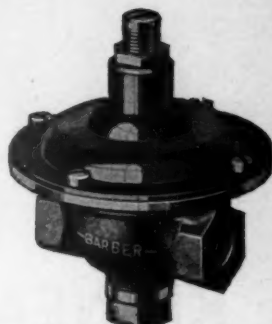
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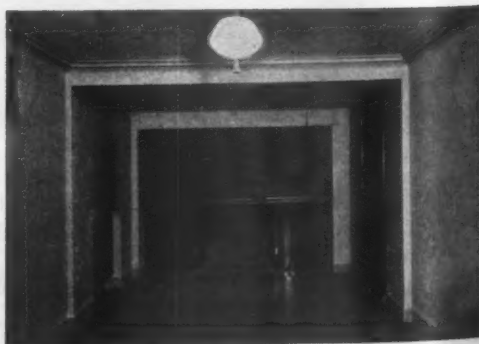
Whether it's for service purposes or for a barrier against fire Kinnear has an Upward-Acting door to suit the exact requirement. Especially built for any size opening—of metal or wood—for old or new buildings—manually or electrically operated. Ask for your copy of Kinnear's interesting Door Catalog. It will be gladly sent. No obligation.

The Kinnear Manufacturing Company
2060-80 Fields Ave. Columbus, Ohio

Offices and Agents in All Principal Cities

To Office Corridors

Closing a fire wall opening in a passage way with a Kinnear Akbar Fire Door. Illustrates how all mechanism of the door can be concealed in the walls. Though the door is normally kept in the open position, the curtain gives a clean-cut appearance when closed—as well as positive fire protection.

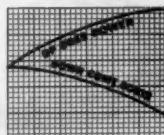


More Money-Saving Power in CHEVROLET TRUCKS

FOR ECONOMICAL



TRANSPORTATION



The new 1936 Chevrolet trucks are the most powerful trucks Chevrolet ever built. They are the most economical trucks for all-round duty, ever offered. Let a demonstration prove how these new Chevrolet trucks can save money for you—add to the profits of your business. There's a body type for practically every delivery and haulage need on half-ton and 1½-ton chassis . . . and you'll be surprised at the low prices of these new trucks.

CHEVROLET MOTOR CO., DETROIT, MICH.

Vital New Features Cut Haulage Costs to New Low Levels

NEW PERFECTED HYDRAULIC BRAKES always equalized for quick, unswerving, "straight line" stops

NEW HIGH-COMPRESSION VALVE-IN-HEAD ENGINE with increased horsepower, increased torque, greater economy in gas and oil

NEW FULL-TRIMMED DE LUXE CAB with clear-vision instrument panel for safe control

FULL-FLOATING REAR AXLE with barrel type wheel bearings on 1½-ton models

POWER • ECONOMY • DEPENDABILITY • LONG LIFE

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The -

'HOT WEATHER'

Headband!



NON-RUBBER HEADBAND

During the hot summer months in working conditions, such as are encountered in Steel Mills, Foundries, Oil Refineries, Boiler Works, Locomotive Shops and Acid Plants where workers are continually confronted with conditions of extreme heat, moisture, steam, perspiration, oil, grease and acids, Drednaut Non-Rubber Headbands are particularly effective.

The Drednaut Non-Rubber Headband is NOT affected by any of the conditions named above because it contains no rubber. Its construction makes it especially ideal for use in hot weather where the ordinary elastic headbands cause no end of trouble and grief from perspiration.

By looking at the skeleton view above you will readily discern that the Drednaut Non-Rubber Headband consists of a section of non-corrosive bead chain of the highest quality, which is attached to each eye cup by a hinged member. Over the chain, a section of spring is placed, and is so fastened that it cannot be injured by over-extension. It can be sterilized too, in any way without injury whatsoever. Both chain and spring are enclosed in a cloth sleeve.

The Drednaut Non-Rubber Headband is adjustable to any size head. Once adjusted—it stays adjusted for keeps, and maintains a uniform tension indefinitely. Men are amazed at its comfort and fool-proof qualities and what's more, it makes them LIKE to wear goggles.

If your men are confronted with any of the conditions mentioned above—have them try a pair of Drednaut or Super-Drednaut Goggles with the Non-Rubber Headband—they will be amazed with its ever-lasting comfort and non-existent annoyances so prevalent in the old style elastic headbands.



Super-Drednaut 50-S Goggles



New General Catalog No. 10-A Upon Request

THE SAFETY EQUIPMENT SERVICE CO.

Buell W. Nutt, President :: 1230 St. Clair Avenue, Cleveland, Ohio

Manufacturers of a Complete Line of Accident-Prevention Equipment

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
EVEREADY
Trade Mark
**INDUSTRIAL
FLASHLIGHT**

"Stands the Gaff"

General all-around hard usage in industrial service has shown conclusively that the "EVEREADY" Industrial Flashlight can "Stand The Gaff". Bounced around on concrete floors and many other places are everyday shop experiences and each time this "EVEREADY" has come through unmarked. Its bright beam does not even flicker. The fact that it has no exterior metal parts is vitally important when working around exposed electrical connections and "hot" wires.

NATIONAL CARBON COMPANY, INC.

General Offices: New York, N.Y. • Branches: Chicago, San Francisco

Unit of Union Carbide  and Carbon Corporation

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The Basic Principles of **MODERN GROUP DRIVE**

5

YESTERDAY Management's problem was volume production. Today the necessity for production is tempered by many forces, and the vital problem is reduction of manufacturing costs. And, while tremendous forward strides have been made in the technology of the actual machinery of manufacturing, as well as in the generation of power to drive that machinery, there is still a wide cost-gap in which large economies may be effected.

That gap lies between the point where power, as generated, is made available for productive work, and the machines which that power must turn. In brief, it lies in the zone of the transmission of power from driving to driven machine.

The field engineering research of this association has revealed numerous economies which may result from the use of properly designed and applied power transmission equipment. The field work of the association's engineers, and its advertising and publicity work likewise, have but one primary objective—to educate the industrial user of power to use that power more effectively.

In that objective we stand on common ground. We, therefore, invite you to join with us in promoting the Right Drive for Every Machine, for reasons as much to your advantage as to ours. May we discuss this with you in detail?

***POWER TRANSMISSION COUNCIL**

1 Atlantic Street, Stamford, Conn.

* A research association of producers and distributors of power, power units and mechanical equipment for the transmission of power.

A POWER DOLLAR SAVED IS A PROFIT DOLLAR EARNED

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TELL THEM and you'll SELL THEM



Lamps, toasters, percolators—they all need tags to put your sales message across at the point of purchase. For a tag on your product

1. IDENTIFIES
2. GUARANTEES
3. INSTRUCTS

We make a great variety of tags of all kinds. If you could see samples of our latest work you would find inspiration for tags in your business. Just fill in the coupon and we'll be glad to send you some and prices without obligation.



Dennison's

Dept. NL

Framingham, Mass.

Send me a few samples of tags that tell them. No obligation of course.

NAME

POSITION

COMPANY

CITY

STATE

*During the last few years
there has been a decided*

SWING^{to} RILEY STEAM GENERATING UNITS

**A Few of the Companies who have recently installed
Riley Boilers**

Lynn Gas & Electric Co. . . . 205,000 lbs./hr.—430 lbs.—810° F.

Stone & Webster Engineering Corp., Engineers

W. Va. Pulp & Paper Co., Covington . . . 375,000 lbs./hr.—600 lbs.—750° F.

Titanium Pigment Co. . . . 125,000 lbs./hr.—448 lbs.—637° F.

Ford, Bacon & Davis, Engineers

Large Eastern Oil Refinery . . . 300,000 lbs./hr.—646 lbs.—740° F.

Standard Oil of California . . . 125,000 lbs./hr.—850 lbs.—760° F.

Stone & Webster Engineering Corp., Engineers

Pennsylvania Sugar Refining Co. . . . 350,000 lbs./hr.—400 lbs.—505° F.

Carbide & Carbon Chemicals Corp. . . . 80,000 lbs./hr.—600 lbs.—650° F.

W. Va. Pulp & Paper Co., Luke . . . 375,000 lbs./hr.—631 lbs.—700° F.

Savannah Sugar Refining Co. . . . 100,000 lbs./hr.—325 lbs.—620° F.

Kalamazoo Vegetable Parchment . . . 150,000 lbs./hr.—275 lbs.—650° F.

Prof. C. F. Hirschfeld, Consulting Engineer

Forstmann Woolen Co. . . . 80,000 lbs./hr.—450 lbs.—612° F.

General Aniline Co. . . . 65,000 lbs./hr.—450 lbs.—670° F.

The swing of plant after plant to Riley Steam Generating Units during the past few years has undeniably established Riley as one of the leaders of the boiler industry.

Be sure to consult Riley when steam generating or fuel burning equipment is being considered.

RILEY STOKER CORPORATION WORCESTER, MASS.

BOSTON
CINCINNATI

NEW YORK
ST. PAUL

PHILADELPHIA
ST. LOUIS

PITTSBURGH
ATLANTA

BUFFALO
KANSAS CITY

CLEVELAND
CHICAGO

DETROIT
LOS ANGELES

COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES
PULVERIZERS - BURNERS - MECHANICAL STOKERS - STEEL-CLAD INSULATED SETTINGS

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THE CAREFUL INVESTOR JUDGES A SECURITY

BY THE HISTORY OF ITS PERFORMANCE

K E R I T E

IN THREE-QUARTERS OF A CENTURY OF

CONTINUOUS PRODUCTION HAS ESTABLISHED

A RECORD OF PERFORMANCE

THAT IS UNEQUALLED IN THE HISTORY OF

INSULATED WIRES AND CABLES

THE KERITE INSULATED WIRE & CABLE COMPANY INC

NEW YORK CHICAGO SAN FRANCISCO

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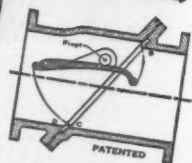
FLANGE JOINTS NEVER OPEN



when Chapman Non-slam Check Valves close!

There's no jar or hammer along the line when these Non-Slam Check valves close. Slamming is made impossible. Pipe joints are made safe against leaks. For Chapman has put an end to valve-slam with a balanced disc that rides steadily in the flow; falls rapidly as the stream slows up; closes the instant it stops. The top flap, pushed against the stream, cushions the disc to a quiet closure.

When these valves go on the line—head and power losses, maintenance and replacement costs go down. Capacity goes up, for there are no obstructions to disturb flow. For a Check Valve that will save money and grief on any water, gas, air, or oil service, put in Chapman's Non-Slam. Bulletin for the asking.



A cushioning effect, obtained by forcing the short flap of the disc against the stream, prevents slamming.

The **CHAPMAN VALVE**
MANUFACTURING COMPANY
INDIAN ORCHARD, MASSACHUSETTS

INTERNATIONAL PUBLIC SERVICE CORP 270 BROADWAY NEW YORK, N. Y.										INTERNATIONAL PUBLIC SERVICE CORP 270 BROADWAY NEW YORK, N. Y.	
DUPLICATE BILL AND COLLECTION		OFFICE HOURS 8:30 A.M. - 5 P.M.		LAST DISCOUNT DAY -		July 20		LAST DISCOUNT DAY -		July 20	
W. Thompson 1460 Warren St. City		3 14 1860		W. Thompson 1460 Warren St. City		3 14 1860		W. Thompson 1460 Warren St. City		3 14 1860	
USER	NET	METER READINGS	K.W.H.	THERMS	PERIOD	TO	GROSS	NET	DESCRIPTION	DISC.	GROSS
5.28	4.80	PRESENT	1804	1708	JUN 5	JUL 6	5.28	4.80	ELECTRICITY	ELEC	5.28
2.24	2.04	PREVIOUS	108	34	JUN 5	JUL 6	2.24	2.04	GAS	GAS	2.24
6.00	6.00		664	6618	JUN 5	JUL 6	6.00	6.00	MERCHANDISE	NO. SE	6.00
4.15	4.15				JUN 5	JUL 6	4.15	4.15	ELEC. APPENDS	EL. AR	4.15
3.85	3.85				MAY 4	JUN 5	3.85	3.85	GAS APPENDS	GS. AR	3.85
3.00	3.00				MAY 4	JUN 5	3.00	3.00	GAS APPENDS	GS. AR	3.00
RATE SCHEDULE ON REVERSE SIDE CALCULATION OF ELECTRIC BILL K.W.H. USED LAST YEAR 88 4.80 5.12 1.38 NET SAVINGS 1.38											
						\$23.98		\$23.24		\$23.24	

Greater Detail and SPEED for Objective Rate Billing

The complex requirements imposed upon utility companies in connection with Objective Rate Billing are ideally met with the International Electric Bookkeeping and Accounting Method. This machine accounting method provides for the extension, proof and recording of all factors involved in billing complex promotional rates—with no reduction in speed. Note the following exclusive advantages:

1. Automatic recording of basic readings—no transferring of meter sheets.
2. Automatic classification of each account according to those participating and those not participating in low rates.
3. Automatic extension and proof at a constant speed of 6,000 items per hour, regardless of the number of factors involved.
4. Bills printed at a constant speed (1,200 to 3,500 per hour) regardless of the number of factors printed on the bill.
5. Detailed statistics available as a by-product result.

This plan may be applied with great advantage, to any type of promotional rates. Let us send you detailed information.

INTERNATIONAL BUSINESS MACHINES CORPORATION

GENERAL OFFICES:
270 BROADWAY, NEW YORK, N. Y.

BRANCH OFFICES IN
PRINCIPAL CITIES OF THE WORLD



QUICK SURE OUT

For Broken Screw Ends with the
Revolutionary New **RIDGID**
"LONGGRIP" Extractor

• **RIDGID** "LONGGRIP" Extractors take out broken threaded ends promptly, every time—even with equipment running.

For with **RIDGID** Drills and Drill Guides the broken end is drilled to a thin shell, whether it's at the surface or in a hole—and without stopping a machine.

Then drive in the "LONGGRIP" Extractor. The vertical flutes take a full length grip—slipping or reaming is impossible—the drilled out broken bolt has to come out.

See your Jobber or write for the whole story
of these remarkable tools

THE RIDGE TOOL CO., ELYRIA, OHIO

RIDGID
LONGGRIP
STRAIGHT-FLUTED
SCREW AND PIPE EXTRACTORS



RIDGID, the pipe wrench with the guaranteed unbreakable housing. Strength that meets United States Government and Navy specifications.

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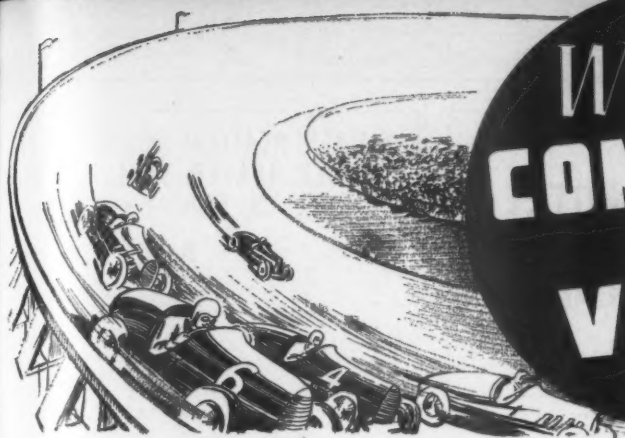
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When
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USE A TITAN ON YOUR STORAGE WATER HEATER

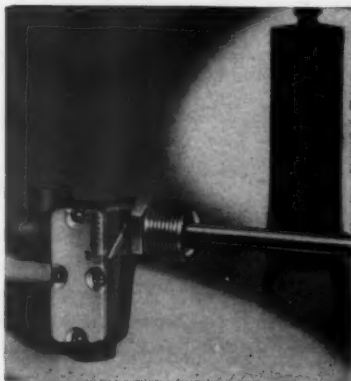
TO make this control possible, there must be built into the racing car the sturdiness, the long life, and the ability to absorb the gruelling punishment of the race. So too, the TITAN is built to perfectly control your storage water heater over a long period of time, and under the most exacting conditions. Upon this depends the success of the heaters you sell. Your aim is to increase consumer satisfaction.

¶ Why take unnecessary chances? Specify TITAN snap action thermostats, safety pilots and temperature and pressure relief valves with complete confidence, and build good will with your customer.

¶ TITAN Controls have delivered for years under every conceivable set of conditions, with all types of gases. They are rugged, sensitive, trouble and service free. They are standard equipment on most storage water

heaters approved by the American Gas Association.

¶ May we send you an impressive list of manufacturers who have standardized on TITAN Controls?



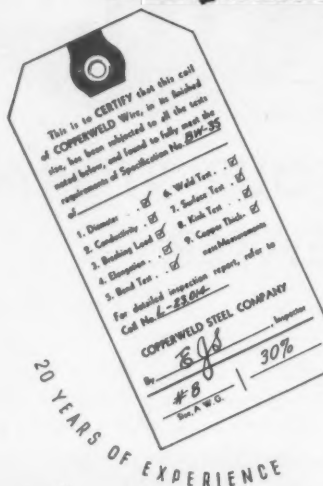
THE TITAN VALVE & MANUFACTURING COMPANY
THERMOSTATS " SAFETY PILOTS " RELIEF VALVES
E. 32nd Street & Perkins Ave. Cleveland, Ohio

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**WATER HEATER
CONTROLS**

Your GUARANTEE of UNIFORM HIGH QUALITY



*This TAG of CERTIFICATION
appears on every coil of*
"COPPERWELD" WIRE and STRAND

Nine rigid tests, that the finished wire must pass before shipment or stranding, make certain that it meets exacting specifications. These, together with the many tests of raw materials and of those in process, maintain the high quality of Copperweld products.

All genuine Copperweld wire and strand bears such a tag of Certified Inspection. It is your guarantee that the product is time-tested, rigidly inspected Copperweld.

COPPERWELD STEEL COMPANY
GLASSPORT PA.

WALKER WEATHERPROOF RANGE OR WATER HEATER SWITCHES IN STEEL OR ALUMINUM CASES



Arranged to Thread Into Base of a Socket Meter or Connect to the Bottom or Side of Meter Cabinet. A Unique Sealable Weatherproof Opening Without Gaskets or Screws. Any Arrangement of Knock-outs or Conduit Hubs.

Complete Information on Request.

WALKER ELECTRICAL COMPANY
ATLANTA GEORGIA

ACCURACY

In the efficient operation of water or sewage treatment works, it is of utmost importance that a definite and ACCURATE knowledge of flow conditions be known.

SIMPLEX VENTURI TYPE METERS, because of their SENSITIVITY and ACCURATE RESPONSE to flow variations over a wide range, will meet your most exacting flow measuring requirements.

Let SIMPLEX ENGINEERS help YOU.

SIMPLEX VALVE & METER CO.
6761 Upland St., Philadelphia, Pa.

1 Royal's Elite

The handsome appearance of this small and somewhat formal type style makes it a decided favorite for executive correspondence of an executive nature.

3 Royal's Modern Pica

Less formal than the conventional Pica. Preferred by executives desiring to impart a modern feeling in their correspondence.

2 Royal's Pica

Unusually legible. Accepted as standard for general purposes. Capitals and lower case are well-defined and clear-cut.

4 ROYAL'S EXECUTIVE

Distinctive. Has the characteristics of Royal's Italic, except that it is upright. Overcomes objection to the more usual faces.

TYPE - FACES

To INDIVIDUALIZE every department of your business!

Royal offers a complete range of more than 50 distinctive faces. Eight of the most popular are illustrated herewith . . .

5 ROYAL'S ROMAN GOTHIC AND PIN POINT

Developed for check protection. Combines reading ease, with a perforation feature which renders alteration virtually impossible.

6 Royal's Great Primer

Large size and extreme legibility make this type well suited for lectures, sight conservation, radio and photo-offset work.

7 ROYAL'S PICA SINGLE GOTHIC

Capitals only. Extensively used in billing work, as well as for legal and shipping documents. Produces maximum number of carbons.

8 Royal's Ampli

For bulletins, labels, tags and price cards. Cuts an excellent stencil. Useful in school classrooms for seat-work.

MAKE TYPEWRITER TYPE TALK!

Make your typewriters speak your business! Royals will do that—AND MORE! The president of one organization, for example, selected Royal's Executive (4) for his official correspondence; his sales manager uses Royal's Modern Pica (3). No mistaking either's memoranda; the type-styles are as distinctive as the signatures themselves! Right now, for different departments, you have different forms—each carefully planned for greatest efficiency. Match each with the Royal type-face SPECIALLY DESIGNED FOR THE SPECIFIC JOB. Consult your local Royal representative. He is a specialist in typewriters, and type faces. Let him advise you . . . let him tell you all about the New Easy-Writing Royal. In your office . . . Compare the Work!

ROYAL TYPEWRITER COMPANY, INC.
2 Park Ave., New York

Branches and Agencies the World Over

ROYAL WORLD'S NO. 1 TYPEWRITER

* Trade-mark for key-tension device.

FIRSTS that make ROYAL FIRST! SPEED—Greater volume! EASE—With Touch Control,* Shift Freedom and many other exclusive features! CAPACITY! Greater speed, greater output! ECONOMY—Lower costs throughout! And DURABILITY!



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ALWAYS QUICKEST IN SEPARATION

*Gargoyle DTE Oils
retain this ability
for 10, 20 and even
30 thousand hours!*



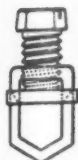
SOCONY-VACUUM OIL COMPANY, INC.

STANDARD OIL OF NEW YORK DIVISION - WHITE STAR DIVISION - LUBRITE
DIVISION - WHITE EAGLE DIVISION - WADHAMS OIL COMPANY - MAGNOLIA
PETROLEUM COMPANY - GENERAL PETROLEUM CORPORATION OF CALIFORNIA

SIMPLE, ISN'T IT?



NOTICE: The triangular wedge formed by the tang and V-bottom collar, which forces the wire into a solid mesh—



- NO set-screw contact...
- NO flattening or separating of wires...
- NO limitation to one size wire...
- NO shearing effect whatsoever...
- NO special tools required to make connection...

NO need for you to search any longer for the PERFECT solderless connector—WE HAVE IT!

FREE! A large display board, containing mounted samples of ILSCO lugs. Sent upon request. Address Dept. UF.

ILSCO COPPER TUBE & PRODUCTS, INC.
5629 Madison Rd. Cincinnati, Ohio

CONNELLY REGULATORS for APPLIANCES

60th Anniversary
1876-1936



Regulators for Pilots, Refrigerators, Ranges and all Appliances.

The Connelly Jr. (upper left) is made in $\frac{1}{4}$ " size only—compact, simple and sensitive for small capacities.

Connelly Type DCB—Spring Loaded and Type DCW—Weight Loaded—are designed for long service with a minimum of maintenance. They are rugged; simple and direct acting; occupy small space and give accurate control.

CONNELLY IRON SPONGE & GOVERNOR COMPANY

Chicago, Illinois - 3154 South California Ave.
Elizabeth, N. J. - 200 South Second Street
N. E. Agt.; Theo. H. Piser - Wellesley Hills, Mass.

It'll pay you to INVESTIGATE...

STOWE STOKERS



• Compensating feed—positive rear end air seals—unrestricted coal selection—and much reduced ash pit losses—these are some of the advantages that Stowe Stokers—and only Stowe Stokers can give you. Investigate these exclusive features. Full details, and a copy of Catalog No. 10, on request. Send for one.

THE JOHNSTON & JENNINGS CO.

977 Addison Road Cleveland, Ohio
Engineering and Sales Services in Principal Cities

A battery of four Stowe Stokers burning cheap midwestern coal—at high efficiency.

Catalog No. 10 is complete with 14 diagrams, 20 illustrations. Send for one.



STOWE STOKERS

★ *Compensating Feed*

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Cool and Heat with these QUIET Cabinets



If you are planning to revamp a heating system for office or plant, why not consider a unit that will serve more than one purpose? One that will cool in summer, heat in

winter and condition the year round, the Buffalo "PC" Cabinet.

Because of many years experience in the related sciences of air engineering and conditioning, Buffalo engineers can give you valuable assistance on any air conditioning problem from the simple circulation of air to the complete air conditioning of an entire plant.

Bulletin 501 gives you complete information on "PC" Cabinets with capacity table and other engineering data.

BUFFALO FORGE COMPANY

444 Broadway

Buffalo, N. Y.

In Canada: CANADIAN BLOWER & FORGE CO., LTD., KITCHENER, ONT.

"Buffalo"

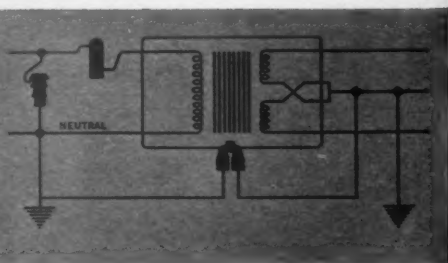
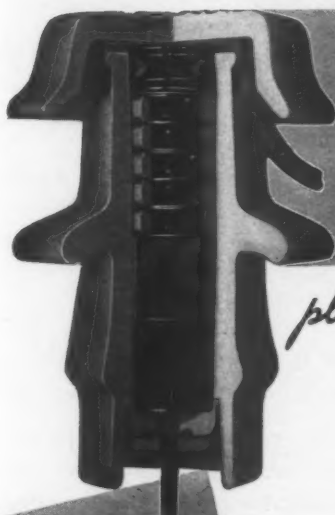
**for Ventilating
Cooling, Heating
Air Conditioning**



BEAT!

LIGHTNING'S TRIPLE THREAT

WITH 3-POINT PROTECTION



plus ARRESTERS DESIGNED FOR THE NEW CONNECTIONS

Blown fuse outages can be cut 33 to 50%... transformer burnouts 40 to 90%... and customer service interruptions about 50%... by using the new lightning arrester arrangements (interconnection or 3-Point Protection) instead of the standard connection. These facts are confirmed by carefully compiled records of numerous utilities.

These records also show, however, that the new connections impose more severe duties on the lightning arresters and greatly increase the mortality of the conventional arrester. That's why Westinghouse designed the new LV—and its ability to withstand the increased duty has been proved by more than two hundred thousand arrester-years' service.

Get detailed information on the advantages of 3-Point Protection and the new LV arresters from our representative or from 5-N, Westinghouse, East Pittsburgh, Pa.

J. H. HARRIS

- 1 Surge current capacity has been doubled. The new LV can handle 50,000 surge amperes.
- 2 Discharge ability of porous block has been raised considerably by improving its composition.
- 3 The number of gaps has been increased to break the power follow current more efficiently.
- 4 Crest voltage is far below the value necessary to adequately protect the transformer.
- 5 Drop-out feature prevents line grounding.
- 6 500,000 arrester-years' service has proved the LV to be moisture-proof.
- 7 Every block of every arrester is given a surge test to assure correct operation.



Westinghouse

**Pressure Type
1-Gallon
Fire
Extinguisher**



**easy operation
rapid discharge
long range
large capacity**

Here is the big brother that comes to the rescue of the little fellow when he's trying to handle something beyond his capacity.

Wherever there are big buses, trucks, gasoline pumps, electric locomotives, transformers, panel boards, and large rotary units, this one-gallon pressure-operated Pyrene extinguisher offers greater protection.

Speed and force of application are important in fire fighting. Give the valve of this extinguisher a quarter turn and a strong stream discharges one gallon of vaporizing liquid in 55 seconds.

Make sure that you have enough Pyrene one-gallon extinguishers to back up your smaller equipment. Write for folder No. 22.

Pyrene Manufacturing Company
NEWARK NEW JERSEY

ATLANTA
KANSAS CITY



CHICAGO
SAN FRANCISCO



EXPERT
PREFABRICATION

... SHOWS UP IN LOWER ERECTION COSTS

Grinnell pre-tested fabrication means more accurate dimensions, fewer field joints, less field testing—all of which means substantial savings in pipe erection costs.

In the Grinnell shops every welded joint is the work of an expert. In fact, only an expert

welder could meet the rigid requirements laid down by Grinnell.

When plans call for pipe bending and welded joints, most engineers turn to Grinnell for correct interpretation and fabrication.

GRINNELL

EXECUTIVE OFFICES



COMPANY

PROVIDENCE, R. I.

Branch Offices in Principal Cities

NOW OFFERING
F. H. A. Modernization
Credit in amounts up to
\$10,000
low rate, long term
monthly payments.

GRINNELL

FABRICATED PIPING AND ALLIED PRODUCTS TO GRINNELL LABORATORY STANDARDS

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Performance that develops a sense of good feeling endows an appliance with priceless value as a builder of goodwill. But before performance can become evident several things must happen, among which is the development of the urge to possess the appliance. The dignity, good taste, and grace of line which characterize the new Niagara *Two-Twenty* Gas Air-Conditioning Unit excite complimentary comment that makes new customers.

Walter L. Seelbach

W. L. Seelbach, Secretary-Treasurer

THE FOREST CITY FOUNDRIES COMPANY
CLEVELAND, OHIO

► Niagara Gas Fired Air-Conditioning Units will be displayed at the Association of Gas Appliances and Equipment Manufacturers Exposition at Atlantic City in October, 1936. ◀

NIAGARA

Two - Twenty

GAS AIR-CONDITIONING SYSTEMS

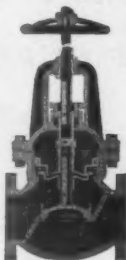


- Alloy tool steels made to exacting specifications
- Old craftsman methods of individual manufacture
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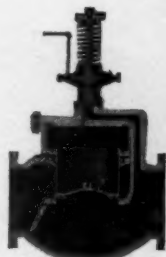
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Utilities Almanack

AUGUST

13	T ^h	¶ Third World Power Conference and Second Congress on Large Dams will convene, Washington, D. C., September 7-12, 1936.
14	F	¶ Illuminating Engineering Society will hold session, Buffalo, N. Y., August 31-September 3, 1936.
15	S ^a	¶ International Association of Municipal Electricians will hold convention, New York, N. Y., August 31-September 4, 1936.
16	S	¶ National Association of Power Engineers, Inc., will convene, Chicago, Ill., August 31-September 4, 1936.
17	M	¶ Canadian Good Roads Association will hold annual meeting, Charlottetown, P. E. I., September 1-3, 1936.
18	T ^u	¶ League of Iowa Municipalities starts meeting, Davenport, Iowa, 1936.
19	W	¶ Central States Section, American Water Works Association, begins convention, Cleveland, Ohio, 1936.
20	T ^h	¶ Union of Nova Scotia Municipalities will hold annual convention, Digby, N. S., September 2-4, 1936.
21	F	¶ League of North Dakota Municipalities will hold session, Mandan, N. D., September 3, 4, 1936.
22	S ^a	¶ National Electrical and Radio Exposition will be held, New York, N. Y., September 9-19, 1936.
23	S	¶ American Electronic Research Association will hold annual meeting, Detroit, Mich., September 21-23, 1936.
24	M	¶ American Bar Association starts 59th annual convention, Boston, Mass., 1936.
25	T ^u	¶ Pacific Coast Gas Association opens 43rd convention, San Francisco, Cal., 1936. ¶ American Bar Assn., Sec. of Pub. Util. Law, convenes, Boston, Mass., 1936.
26	W	¶ Sections of Public Utility Law and of Municipal Law, American Bar Association, meet, Boston, Mass., 1936.



Photo by Lewis P. Wolts

"Manhattan, 1933"

by H. Glintenkamp

Public Utilities

FORTNIGHTLY

VOL. XVIII; No. 4



AUGUST 13, 1936

OWNERSHIP, MANAGEMENT, AND REGULATION OF

The German Public Utilities

Adequate legal authority of the Hitler government for their effective control and necessary constitutional power for their complete socialization.

By THATCHER C. JONES AND KIMON A. DOUKAS

IN the United States public utility law is well defined. Such themes as legal procedure, rates, valuation, depreciation, and general regulatory authority have been viewed and reviewed by the courts and the lawyers, by commissions, accountants, and economists; even practical politicians have included the subject within the sphere of their activities. And the findings of all have been tried and experimented with. As a result, all that proved beneficial to the industry has been crystallized into legislative enactments, commission rulings, and voluntary adoptions by the utilities themselves.

Thus, state and Federal acts, court

decisions, commission rulings, public and private studies, research by economists, engineers, and accountants, financial and operating data assembled by allied services, and propaganda material of the utilities and the politicians alike, comprise indeed a monumental literature on the subject. In short, the legal, economic, and financial status of the public utility industry in the United States is clearly delimited. The question of supervision and control no longer baffles regulatory bodies.

Such definiteness of public utility supervision and ownership, however, is partially, if not actually, wanting in many of the principal countries of Europe. This is particularly true in

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Germany, where the characteristically thoroughgoing and scientific application of sound procedure is conspicuously absent. Their regulatory laws, judicial pronouncements, and general literature of merit are distinctly less voluminous and complete than ours.

BASIC laws of general application throughout the Reich are extremely limited in the public utility field. An exhaustive search revealed the absence of a well-coördinated legislative authorization for the existing systems. Thus, it has been stated:

In Germany the four local utilities under consideration (water, gas, electricity, and tramways) have been almost without exception established as monopolies. This has occurred *without any specific legal sanction*, simply because the local authorities have considered the case for monopoly to be self-evident.¹

It is difficult to determine on what grounds this absence of legal sanction is due. This much is true: (a) that in Germany most public utilities are owned and operated by the municipalities, whereas in the United States the majority are in private hands; (b) that there has been a century old rivalry between the Reich or central government and the Laender or states, which did not permit the Reichstag, as the central legislative body, to provide for a uniform system of organization, operation, and supervision of public utilities throughout the country; and (c) that German municipalities, more than elsewhere, enjoy a high degree of local autonomy or home rule, being practically independent of state and national interference in their administration.

WITH such considerations in mind, it may now be stated that enter-

prises, comprising the category of public utilities, are more numerous in Germany than in the United States.

Thus, Article 156 of the Weimar Constitution designated the privately owned coal, potash, and iron industries as public enterprises and placed them on a basis tantamount to compulsory self-determination under national control and supervision.²

Again, it is common knowledge that the railroads, telegraphs, and telephones are completely owned and operated by the German national government. This is equally true in France and in most of the other European countries. It is only in certain cases, notably in England, where government ownership does not extend to the railroads.

Furthermore, there is an additional element to be considered. What we know in this country as "regulated competition," in Germany appears as "controlled monopoly." Their theory is that monopolies eliminate the evils of overproduction, reduce wasteful exploitation, and do away with overlapping administration through a system of unified and monopolistic compulsory self-determination under national control and supervision.

In other words, such controlled monopoly, owing to its flexibility and adaptability, obtains highly trained personnel in enterprises whose size or importance make public control expedient. It is exercised either from within, through stock ownership, providing for proportional representation on the board of directors, or from without, on the theory that the industry is affected with public interest. That *ipso facto* subjects it to public regulation and control.³

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FROM early years up to the close of the World War, public utilities operated under a decentralized form of supervision and control. There was very little power vested in the national (Reich) government. This, however, was substantially changed after the war, when in 1919 the Weimar assembly adopted what is known as the Weimar Constitution. It is the most recent legislation designed to effect control of public utilities.

Thus, Art. 7, par. 13, provides that the Reich shall have legislative competence for

The socialization of natural resources and economic undertakings, and also the production, manufacture, distribution, and price regulation of economic wares for the benefit of general economy (Gemeinwirtschaft).

Such Reich legislative competence is superimposed over and above any parallel power of the states. This is evident from Art. 12, which provides that:

The government of the Reich has the right of veto in regard to state laws relating to matters within the scope of Art. 7, in so far as the general welfare of the Reich is thereby affected.

This article establishes the precedence of the national (Reich) law over any concurrent state legislation. In fact, the Reich may now object to state enactment on subjects covered in the Constitution. Article 14 leaves no room for conjecture on this point. It declares that:

The laws enacted by the states shall be executed by the authorities of the state, unless the laws of the Reich determine otherwise.

Indeed, the last-cited article virtually eliminates the need of constitutional amendments.⁴ The contrast is obvious. Whereas, the American Constitution guarantees a republican form to the states, and in no uncertain terms safeguards their sovereignty, the German Constitution withdraws it from the states and vests the all-important power of amending the Constitution in the Reich.⁵

WHAT, however, was considered at the time to be a *fait accompli*; namely, the centralization of the German states, was not practiced until recent years. It remained for the National Socialist Party to accomplish that which neither Bismarck, nor the Weimar assembly could achieve. After a period of thirteen years, Hitler in 1933 was successful in fulfilling his 1920 declarations — a complete centralization. It has far-reaching possibilities in connection with the Nazi socialization program of public utilities throughout Germany.

Indeed, the Hitler decrees left nothing undone to effectuate a complete unification with the unmistakable subordination of the respective states to the Central Government. The decree of April 2, 1933, provided that the state governors, with the exception of Prussia, were to be named by the Chancellor and appointed by the President, and were to hold office at the absolute pleasure of the former. And now that Hitler enjoys the powers of



“BASIC laws of general application throughout the Reich are extremely limited in the public utility field. An exhaustive search revealed the absence of a well-coördinated legislative authorization for the existing systems.”

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the consolidated offices as Reichsfuehrer, his dominance of the state governments is complete. His appointees have the power to appoint and remove state cabinets, dissolve state assemblies, and prepare and publish state laws (Art. 1).⁶

IN addition to such unprecedented power over the state governments, Hitler divested himself of many constitutional restrictions. This he engineered through the so-called Enabling Act of March 24, 1933, which expires April 1, 1937. The act declares that the Central Government may enact laws in contravention of the Weimar Constitution, just so long as the Reich enactments (a) do not affect the position of the Reichstag and Reichsrat, both at present wholly disorganized, or practically dead; and (b) they leave unchanged the powers of the President, whose office remains vacant at present (Art. 2).⁷

The Nazi have thus usurped all three divisions of governmental power — legislative, executive, and judicial. Effective checks to constitutional changes, or to overt acts of an ambitious demagogue have been removed. What an anomaly to our way of thinking! Yet, the theory of the Reichsfuehrer finds a parallel in that of our foremost "braintrusters," who only recently contributed the following startling paragraph:

that executive, legislative, and judicial functions are not unalterably fixed, but are subject to revision. Government, or any part of it, is not in itself something; it is for something. It must do what we expect of it or it must be changed so that it will.⁸

Herr Hitler has altered both form and substance of the German Constitution, so that it now "does what he

expects of it." The effect on the social and economic life of the people, as expected, is pronounced. The old barriers to concentration, whether political or economic, are largely broken down.

THE constitutional changes place socialization, or more accurately, nationalization of utilities, aside from the railroads and other means of communication, well within the range of legal possibility. Interstate service, particularly of electric power, may now be more effectively developed.

A clear picture of the situation, as it exists today in Germany, may be obtained by a consideration of pre-Nazi enactments and decrees which paved the way for the present legal set-up of utilities. A brief review, especially of the leading measures, which laid the foundation for the prevailing conditions, becomes necessary.

Reference has already been made to the unmistakable declaration of "socialization," contained in Art. 7, par. 13, of the Weimar Constitution of 1919. This illusive panacea for the evils of our modern mechanical civilization permeates the German Constitution. It is still in progress. But a retrospective glance at its precursors will clarify our understanding of the entire development. In examining such legislative measures, we shall observe their effect on the development of German public utilities. The electric industry provides an adequate basis for such a study.

It must be realized at the outset that legislation had little effect on the development of the electric light and power industry in Germany. During the early stages, the industry enjoyed



German Constitution under Hitler

"HERR Hitler has altered both form and substance of the German Constitution, so that it now 'does what he expects of it.' The effect on the social and economic life of the people, as expected, is pronounced. The old barriers to concentration, whether political or economic, are largely broken down."

a high degree of independence. It was neither stimulated nor retarded by government measures. On the contrary, it must be emphasized that private capital and private initiative were solely responsible for the progress made. But its later development involved municipal organization, planning, and foresight.

PRIOR to the World War, the Reich Department of Interior advocated legislation with a threefold design: (a) to curb and actually control private monopolistic aspirations of large concerns; (b) to reduce constantly mounting rates, on the one hand, and to consolidate small and independent electric plants, on the other; and (c) to provide new revenues for the government through additional taxes under the requirement of having all enterprises producing and distributing electric energy incorporate as A. G. ("Aktiengesellschaft").⁹

Ostensibly, the Reich was primarily interested in the additional revenues

obtainable under the proposed legislation. On the other hand, the various state governments wanted to have the right to subscribe up to 20 per cent of the entire capitalization. Such participation, they figured, would give them a voice in the management, and a share of the profits.

War exigencies, however, terminated such governmental proposals, which, it may again be pointed out, were fiscal in character rather than regulatory. Yet, the unfortunate termination of the measures left unobstructed the development of altogether different theories, which are comprised in the all-embracing term "socialization." And for the first time, during the war period, with so many extenuating circumstances confronting the government, attempts were made to regulate and supervise public utilities.

Such regulation and supervision, however, was regarded to be largely a conservation measure rather than a fiscal exploitation.

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THUS, viewing with alarm the wasteful production of coal, the Federal Council empowered the Chancellor on June 21, 1917, to regulate production, transportation, and consumption of electricity, gas, steam, compressed air, and water (Art. 1).¹⁰ In turn, the Chancellor, by his decree of August 30, 1917,¹¹ appointed a Federal Commissioner (Art. 1) to administer, under his direction and in close coöperation with the War Department, though quite independently (Art. 2), the provisions of the act. The Commissioner had his central office in Berlin, and was empowered to appoint representative officials (Art. 3), in various parts of the country (Art. 4). He was assisted by an advisory committee, the members of which were nominated by him and appointed by the Chancellor (Art. 5).

When the war was over, and a republican form of government was established, fiscal as well as conservatory measures were turned into regulatory standards. Provision for control of enterprises, affected with a public interest, was made in Art. 156 of the 1919 Constitution. The framers of the Constitution insisted upon including in this article the latest ideas, theories, and plans of "socialization," as advocated by the so-called progressive and public-spirited German writers.

So far-reaching have been the socialistic changes, which took place in Germany since the adoption of Art. 156, that a restatement should prove of interest:

The Reich may, without prejudice to the right of compensation, by law transfer to public ownership private economic enterprises suitable for socialization, applying

thereby analogously the regulations relating to expropriation. The Reich may allot to itself, the Lands or the Communes a share in the administration of economic enterprises and associations or secure to itself a controlling influence therein in some other way.

The Reich may also in case of urgent necessity for socio-economic interests, by law effect a combination of economic enterprises and associations on the basis of self-administration with the object of securing coöperation of all working elements of the population, of allowing employers and employees a share in the management and regulating the production, fabrication, distribution, utilization, price fixing, and the importation and exportation of economic goods according to the principles of national economy.

The coöperative industrial and economic associations and their unions (*Erwerbs- und Wirtschafts-genossenschaften*) shall at their request be incorporated in the socialized economic system, their constitution and peculiarities being thereby taken into consideration.

This article was the embodiment of previous socialization measures. They were initiated in the law of March 23, 1919,¹² Art. 2 of which provided:

The Reich may by law, upon payment of due compensation, transfer to public ownership private economic enterprises suitable for socialization, which are occupied with the exploitation of the products of the soil (treasures) and the utilization of natural forces.

It may also, in case of urgent need for social economic interests, regulate production and distribution of economic goods.¹³

ARTICLE 3 further provided for a transfer (in ownership and operation) of the new economic system either to the Reich, to the states, to the municipalities, or to municipal undertakings. Whatever its form, it was to remain, to be sure, under the ultimate supervision of the Central Government through specially appointed officials.¹⁴ Similarly, the law provided for the regulation of coal and coke.¹⁵

In conformity with that law, the Reich government issued on August

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21, 1919, an executory decree, thereby installing at the Ministry of Finance a Commissioner, whose duty was to regulate national production, distribution, and utilization of electricity, gas, and water, as well as coal production.¹⁶

The effectiveness of such legislation was vouchsafed in Art. 153 of the Weimar Constitution, which covers the right of expropriation. It provides in part as follows:

Expropriation can only take place for the public benefit and on a legal basis. Adequate compensation shall be granted, unless a Reich law orders otherwise. . . . Compensation must be paid if the Reich expropriates property belonging to the states, Communes, or public utility associations.

Property carries obligations. Its use shall also serve the common good.

SPECIFIC post-war regulation of the electric industry in Germany was initiated with the act of December 31, 1919, providing for the socialization of all electric energy and current.¹⁷

The purpose of the act was to place the electric industry under the absolute authority of the Reich. Its main features were (a) the subdivision of the country into electrical districts, and (b) the consolidation of the existing power plants into a uniform system of production and distribution under a unified control. The weakness of the act was its optional feature. The execution of the act required further details, which were to be enacted by separate legislation to be introduced before April 1, 1921. Failure to enact such additional measures resulted

in its expiration by October, 1926.¹⁸

The advocates of socialization, however, were not to be disheartened. A bill was proposed (a) to legalize districts, as provided in the Act of 1919, and (b) to authorize the Reich to acquire or lease, on due compensation or indemnity, all private power plants of more than 5,000 kilowatts capacity and all high-tension lines of more than 50,000 volts. The compensation or indemnity was to be based on either (a) the income during the three years preceding the war, or (b) on cost of reproduction less depreciation. All expropriation rights claimed by the states or municipalities were to be voided. On the other hand, whenever private capital owned more than 25 per cent of a mixed enterprise, the latter was to be considered a private concern. To effectuate further expropriation, the sum of one billion marks was to be appropriated by the national legislature.

IT was fortunate that the bill never became law. In the expert opinion of Dr. R. Haas, such law "would have resulted in a scattering of German electro-economy."¹⁹

Another attempt was made, and a second bill was introduced in the Reichstag.²⁰ This provided for an advisory council ("beirat") to the electric industry. Members of the council were to be members of the Reichstag and Reichsrat, representatives of the



Q "WHEREAS, the American Constitution guarantees a republican form to the states, and in no uncertain terms safeguards their sovereignty, the German Constitution withdraws it from the states and vests the all-important power of amending the Constitution in the Reich."

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labor parties, and consumers. In addition, the bill provided that twenty experts and technicians were to represent the electric industry at large. Whatever its advantages over the previous bills, this last legislative attempt, like the others, suffered defeat.

Probably the failure of the foregoing legislative attempts was largely attributable to the fact that by 1919-1920 there were few strictly private public utility enterprises. The experiences of war and the financial difficulties subsequent thereto led many municipalities to acquire electric power systems.²¹ Since the early post-war acquisitions there has been a rapid development in public purchase and operation of electric light and power enterprises in Germany.

ACCORDING to one work, 82 per cent of the electric power business is either wholly or partly under public control.²² Another author states that in 1928 more than 50 per cent of electric current was generated by publicly owned plants, while more than 25 per cent was produced by plants owned jointly by public and private interests, whereas less than 15 per cent was generated by wholly privately owned plants.²³ According to a third work, there were 614 electric units in 1929, of which 16 were owned by the Reich, 5 were leased by municipalities, 181 were privately owned, 319 were municipal plants, and 93 were mixed enterprises, that is, owned and operated by joint boards consisting of public and private participation.²⁴

An attempt to unify the entire system through the creation of the so-called "power zone network" by the pooling of power supply, while theo-

retically desirable, has not been developed on any basis comparable with the English "grid" or the power interconnections in America. The conviction that a better load factor and that ultimately lower prices would result has not been sufficiently strong to effectuate such a unified system.²⁵

Curiously enough the various post-war legislative attempts to perfect the electric light and power industry throughout the Reich met with comparatively little success. Though the Germans may be considered thorough and scientific, they lack a focal point in their legislative ventures.

BUT it is equally true that while other countries in Europe, notably France and Great Britain, spread on their statute books cumbersome and at times unworkable legislation designed to direct their activities and to circumscribe the acts of their humblest administrative servants through laws and ministerial decrees, it is different in Germany. Germans bother less with plans than with results. They are concerned with substance, not form. But when they undertake things, they are more likely to carry them out most thoroughly.²⁶

However, one must not hastily now conclude that Germans act on impulse and more or less disregard fundamental rules of law. Such a conclusion would be far from the truth. Their legal system, and in fact, the Continental system, is just as rigid, or just as elastic, as our Anglo-American jurisprudence. The difference lies in the application.

Continental practice adheres to the theory that the Constitution implicitly grants to the executive, or some speci-



Regulation and Socialization

"It becomes obvious that there exists in Germany not only adequate legal authority for effective regulation of public utilities, but also the necessary constitutional power for their complete socialization. This is significant as the German interpretation of enterprises 'affected with public interest' embraces a wider category of activities than is commonly accepted in America."

fic organ or agency of the government, the general power to issue co-legislative regulations for all laws passed by the national legislature. Regulations of this sort form the so-called ordinances or "secondary legislation."²⁷

In England and the United States, on the other hand, such ordinances or decrees, issued for the execution of a particular act, are called "statutory rules," and likewise have full force of law. The right to issue them, however, is delegated by or in the same statute which is to be executed. Such right is granted only in the particular case where the legislature feels unable to specify the details of the law in question.

Professor Dicey has aptly contrasted two legal systems when making the following statement:

Under the English system elaborate and detailed statutes are passed, and the power to make rules under the statutes, *e. g.* by

order of the Council or otherwise, is introduced only in case where it is obvious that to embody the rules in the statutes is either highly inexpedient or practically impossible. Under the foreign, and especially the French system, the form of laws, or in other words, of statutes, is permanently affected by the knowledge of legislators and draftsmen that any law will be supplemented by decrees.²⁸

It becomes obvious that there exists in Germany not only adequate legal authority for effective regulation of public utilities, but also the necessary constitutional power for their complete socialization. This is significant as the German interpretation of enterprises "affected with public interest" embraces a wider category of activities than is commonly accepted in America.

The extent to which public ownership and operation of public utility undertakings are developed, therefore, depends upon economic, social, and political expediency. Under the present régime political expediency dominates.

PUBLIC UTILITIES FORTNIGHTLY

Footnotes

¹ H. E. Batson, *The Price Policies of German Public Utility Undertakings*, (Oxford University Press, London, 1933), p. 5.

² Bruno Alass, *Das Deutsche Reichs Verfassung*, 1919, (R. H. Kalkhoff, Berlin-Zehlendorf, 1920), 2nd ed., pp. 125, 126.

³ F. F. Blachly and M. E. Oatman, *The Government and Administration of Germany*, (The Johns Hopkins Press, Baltimore, 1928), pp. 582-585.

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¹¹ *Reichsgesetzblatt*, 1917, Part II, pp. 743-744.

¹² Kuppert, *op. cit.*, pp. 64-65.

¹³ *Reichsgesetzblatt*, 1919, No. 68, p. 341.

¹⁴ *Ibid.*, p. 342.

¹⁵ *Ibid.*, p. 342.

¹⁶ *Reichsgesetzblatt*, 1919, p. 1441; Blachly & Oatman, *op. cit.*, pp. 165, 566, 567, 582.

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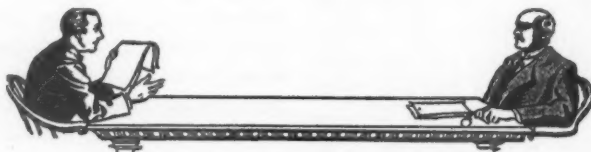
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For a More Tolerant Business Outlook

"As the new president of the National Association of Manufacturers, let me predict that American business during the coming year will achieve an increasing degree of this tolerance and a growing understanding of its responsibilities in publicly interpreting and improving the system of which it is the exponent. Surely the business man who has had the courage, energy, and intelligence to survive the last five years has the stature to accept and the ability and determination to meet this criticism in the fullest interest of national progress."

—COLBY M. CHESTER,

President, National Association of Manufacturers.



The Growing Tendency toward Strait-jacket Regulation

What Will Be Its Result?

WHEN the opponents of the utilities say that regulation has broken down they mean, declares the author, that it is too lax, is too loosely administered, does not go far enough; whereas the truth is that if and when regulation does break down it will be because it is too rigid and goes too far; that this is the real danger confronting regulation.

BY H. O. WEAVER

THE argument of the advocates of government ownership and operation of public utilities is based on the assumed failure of regulation. "Regulation has broken down," is the familiar phrase. "It does not protect the consumer from excessive rates nor the investor from misuse and loss of his funds. It has been tried and found wanting. It has failed. Government ownership is the only remedy." So run the familiar charges.

Well, if regulation has indeed broken down, the question for public ownership advocates to ponder is this: If government cannot succeed at the comparatively simple job of regulation, which is its natural function, how can it hope to succeed at the infinitely harder and more complicated job of operation, for which it is fundamentally unfitted?

And if it cannot find the few hun-

dred competent men that are sufficient for regulation, where can it find the thousands that would be required for operation?

When the opponents of the utilities say that regulation has broken down, they mean that it is too lax, is too loosely administered, does not go far enough; whereas the truth is that if and when regulation does break down it will be because it is too rigid and goes too far. This is the real danger confronting regulation.

Always it is assumed that the cure for the ills of regulation is more regulation. Never does it seem to be suspected that the cure may lie in less rather than more. Yet a little reflection should convince that this is the case.

Once a regulatory agency is set up by government and invested with certain powers, it finds that the objects over which it is given jurisdiction are

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so interwoven with objects over which it has not been given jurisdiction that, to make its control over the former "effective," it at once begins to press for authority over the latter also. Then, it assumes, everything will be all right. But no sooner does it secure from a compliant legislature the added authority than it is faced with the original problem. Its enlarged jurisdiction uncovers a new line of contacts which seemingly makes necessary a further extension, and this, when granted, merely starts the ball rolling again. The further its authority is extended the greater the apparent necessity of extending it still further. Bureaucracy is never satisfied short of complete and absolute control. This is a law of its being. Even when it finds the Constitution blocking its path, not even then does it cease its expansive efforts but immediately seeks a way through, around, under, or over the offending obstacle.

WE see this strikingly illustrated in the history of the AAA. Limited at first to wheat and cotton, our two great export crops, it was thought by its projectors that it could be confined to these; but it immediately set up such disturbances and dislocations in other parts of the agricultural economy that similar control measures were rapidly extended to other farm products down to and including peanuts and potatoes. Starting on a rather loose and purely voluntary basis, it quickly tightened its grip, took on the attributes of compulsion, and throughout its comparatively brief existence constantly tended towards a rigid and vise-like control,—thus exhibiting in rapid succession (until halt-

ed by the Supreme Court) the characteristic phases of bureaucratic encroachment upon and final suppression of individual liberty.

Herbert Spencer long ago pointed out that the common error is in supposing that social agencies will work only in ways that are anticipated—will produce the good results expected of them, and no others. The bad results, he says, are explicable enough when they appear, as they invariably do, yet they are never foreseen. He wrote an essay on "The Sins of Legislators" which might have been written yesterday, so truly does it portray what is happening now. It should be compulsory reading for all officeholders and voters. In it he devotes considerable space to what he calls "legislative miscarriages," which not only fail to remedy the evils at which they are aimed but actually create new evils worse than the old; and he warns of the folly of trusting "a theorizing benevolence rather than an experienced self-interest."

ANOTHER example of the perils of excessive regulation—coming closer home to the gas and electric utilities—is that of the railroads. Here the encroachment upon their autonomy has been slower but none the less sure and we may even now be witnessing its final phases. Year by year and little by little the regulating authority has gathered to itself more power over the roads, and of course as the power of the authority waxed that of railroad management waned. About all that is left to the latter now is the privilege of finding the money with which to pay the exactions saddled upon it by legislative and com-

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mission decree. Today, out of a total mileage of 245,000, 67,000 miles—more than one fourth—are in receivership. If, as many think, the next and final step is outright government ownership and operation—for which a bill has already been introduced in the Senate—it will be largely because of the insatiable demands of regulation which left the roads in the intolerable position of responsibility without authority, from which there was apparently no escape save by jumping from the frying pan of regulation into the fire of government ownership. The idea that the roads might be saved by loosening the tentacles of regulation has apparently not been considered. It would be a grim paradox if the very efforts of a government at last aroused to the necessity of conserving the railroads as the backbone of the country's transportation system should have the effect of destroying them as instrumentalities of public service privately owned and operated.

WILL the gas and electric utilities go the way of the railroads? Utility regulation is not nearly so old as railroad regulation but it is following the same pattern. Each year sees substantial additions to the area brought under regulatory control and a corresponding shrinkage of the area

left to private initiative. Unless checked by some counter force, there is every reason to apprehend that the former will gradually overspread and submerge the latter. One advantage of the railroads is that there is at present a marked abatement of political hostility against them; while the political atmosphere is surcharged with animosity against the utilities. Their situations are different in other respects, too, but their resemblances are more important than their differences so far as regulation is concerned. There is constant pressure against both for lower rates, and the political ear is much more sensitive to the plaint of the customers than to the plea of the corporations.

The danger, then, which is by no means fanciful, is that the utilities may be so strait-jacketed by legislative restrictions, inhibitions, and prohibitions that they will fail through sheer inability to move, and then will have to be taken over by government as the only practicable means of shaking off the regulative incubus which government itself has imposed. Thus will come the real "break-down of regulation," and it will come not from doing too little but from attempting to do too much.

When government takes the field as owner and operator, the whole regulative apparatus is junked. The régime



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of overregulation is succeeded by the régime of no regulation. What was heinously wrong under private ownership becomes eminently right under government ownership—though the untutored citizen may have difficulty in appreciating this moral metamorphosis. Rates, under the former, must be just and reasonable; under the latter, may be anything at all. Accounting, rigorously prescribed under the one to reveal all the elements of cost, may under the other ignore or conceal many of these elements. Discrimination among users of service, forbidden in all cases to the private utilities, is, in the case of the TVA, for example, made mandatory by law. (Do the consumers discriminated against suffer less because the injustice is inflicted by the government?) In short, the government recognizes only such limitations upon its complete freedom of action as it graciously consents to impose upon itself, and these it may alter at will.

IT is pertinent to ask, what has government to show as its warrant for expecting superior results to flow from its conduct of business enterprises? Where are the enterprises to which it can point as examples of such results? Are not waste, inefficiency, and extravagance the invariable concomitants of its incursions into the field of business? And are not its ventures marked by a trail of deficits? True, it is lavish in its promises of what it *will do* but treads gingerly over what it *has done*. It keeps the word of promise to the ear but breaks it to the hope.

Even when we come to those primary duties which we are obliged to

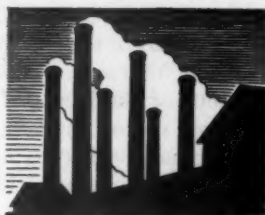
entrust to government—such as police protection, law enforcement, administration of justice—does it perform even these with shining success? With most of us the verdict would undoubtedly be that its performance falls far short of perfection and often is less than acceptable. Until it shows greater competence in discharging those functions which must of necessity be committed to it, and for which it is naturally most fitted, it is presumptuous for it to demand and folly for the electorate to grant it power to conduct purely business undertakings, for which it has no natural fitness at all. This would be reversing the parable of the talents and rewarding the unfaithful servant.

As has often been pointed out, government is organized for political purposes, industry for business purposes. Neither is qualified to take over the functions of the other. Indeed, the better each is organized to perform its own functions, the less it is qualified to perform those of the other.

REGULATION of some sort there must be, and the only agency to which we can intrust it is government. The practical question, therefore, is—What sort of regulation and how prevent it from developing into a meddlesome and rapacious bureaucracy which will eventually strangle the object of its attentions, even when its intentions are ostensibly benevolent? This is a grave problem of the present and the future. Its solution hinges upon a change in psychology and especially political psychology, which will enable the question to be approached from the standpoint of economics rather than emotion.

Value of Private Initiative

"OUR great industrial system, imperfect though it be, has given America the highest standard of living ever known, and is the creation of private initiative and individual enterprise, 'working for profit.' The preservation of these qualities is as vital to the utility industry as to any other and their extinguishment would be as fatal."



One of the most serious students of the problems of regulation was the late Arthur Twining Hadley, president of Yale University from 1899 to 1921. Dr. Hadley was a specialist in railroad history and laws, and prior to his presidency of Yale was a lecturer on railroad transportation at that institution; and he was also an economist and essayist of international repute. He was that rare combination, a practical idealist. He held strongly individualistic views on the subject of utility regulation, shared by few public men of his time, but seen through the perspective of the years they stand out as worthy of restatement at this time.

As a witness before the commission on Revision of Public Service Commissions Law of the State of New York, at a hearing held in New York city in November, 1929, Dr. Hadley developed his views at some length, of which the following is a brief summary:

He believed that the initiative in rate making should be left largely with the companies; that they should not only be permitted but encouraged to experiment by the method of trial

and error to determine what rates produce the greatest stimulus to consumption and at the same time yield the largest net income to the company. Under this system he believed the public normally gets progressively lower rates and the company has a strong incentive to make improvements and economies. This was better, he thought, than limiting earnings to a fixed return on a fixed rate base because in his opinion this tended to retard progress. He did not believe in the theory that the way to give to the consumers was to take from the stockholders—which merely harmed the latter without materially helping the former; but that the emphasis should be placed upon inducement to efficiencies and economies which would benefit consumer and company alike—the one by lower rates, the other by increased net income. "Taking the world over, the successes have been made by giving men the motive of profit to make improvements and to make reductions," he declared; and he added that this was doubly necessary in a comparatively new and growing industry, like the electric industry, where progress depended on experimentation. It was the abandonment

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of this principle, he thought, that caused the stoppage of railroad building in this country a number of years ago and contributed to the unfortunate results that marked the subsequent history of the railroads. Taking rate making out of the hands of railroad men stopped railroad building, he was convinced; and he hoped the electric industry would be spared a similar misfortune. The one thing which he held to be indispensable—repeating this again and again—was the preservation of initiative in the hands of the owners of the industry. Whatever the system of regulation—and he held regulation was necessary to prevent abuses—it should allow full play to private initiative both on the operating and on the commercial side—upon which the well-being of the industry and its ability to serve the public depended. "Every successful invention," he said, "either in the way of machinery or in the way of policy, in railroad matters and in electrical matters, has been put through mainly under private enterprise working for profit. And considering how much state railroad enterprise there has been, that's a very striking thing."

IT is not necessary to agree with every detail of Dr. Hadley's views in order to perceive that they afford food for serious thought. Our great industrial system, imperfect though it be, has given America the highest standard of living ever known, and is the creation of private initiative and individual enterprise, "working for profit." The preservation of these qualities is as vital to the utility industry as to any other and their extinguishment would be as fatal. Upon

this plank in his platform, at least, we can take our stand with Dr. Hadley, and if this can be sustained the industry need not despair of the future. But if disaster is to be averted, some way must be found to halt regulation this side of the virtual absorption of the functions of management. It is not likely that the people of this country will favor the nationalization of either the railroads or the utilities as a matter of deliberate intention. The danger is that it may be brought about not by intention but by indirection—by regulation being pushed so far and made so onerous that government ownership is the only way out.

The only preventive is public opinion, which is still in a state of flux, though there are signs that it is beginning to crystallize against further extensions of government into the realm of private business. It may be that the government's far-flung operations in the Tennessee valley and elsewhere will be such an object lesson in the profligate waste of the taxpayers' money as to solidify public sentiment against further adventures of this sort; and if this should be the case they will be almost worth their cost. Attacks on the utilities would no longer pay political dividends; and when it ceases to be politically profitable to attack the utilities, the attacks will stop.

While the good sense of the American people may be relied upon to assert itself eventually in this as in other matters, time is of the essence and anything that will hasten the formation of a sound public opinion will by so much conserve the nation's most valuable asset—the spirit of independence, enterprise, and initiative of its citizens.



A Model State Commission for Utility Regulation

No. 1. General Requirements

IN this and another article which is to follow the author discusses public utility regulation by state commissions by a plan which he terms the Model Commission. In the present article he considers the qualifications for membership in such a commission, the selection and removal of commissioners, tells how he thinks the work of the commission should be financed, and emphasizes the value of coöperation with other commissions.

By LAURENCE E. BATY

CURRENT literature has voiced considerable criticism of our public utilities commissions.

Present economic distress, coupled with various governmental investigations, is causing people to believe that the commissions have not been "up to snuff" in protecting the consumers from excessive rates charged by the "power trust." Some even are going so far as to say that our state commissions actually are in the pay of the so-called "trust" and "Wall Street."

Reports of the Senate Investigating Committee and the Federal Trade Commission showed transactions so fantastic that the lay mind could interpret them only in one way—big business in general, and each utility in particular, has been out to get the public. Why such transactions have got by the protectors of the public seems mysterious and tends to indicate that such protecting commissions have been

very lax. The public fears that regulation has broken down and that the commissions cannot cope with the situation, or will backslide if given another chance.

THE remedy offered by those afraid of the "Street" (and those standing to profit by promoting this fear) is for governmental owned and operated public utilities. It is necessary only to notice Muscle Shoals, Boulder dam, TVA, and other "irrigation" and "navigation" projects with mammoth power plants in connection, but too remote from load centers to be of any immediate value.

Those proponents of public ownership and operation do not mention that politicians lax in regulation can be even more lax in direct operation.

Taking all in consideration, it is my opinion that irregular transactions have taken place mostly because of

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the constitutional, statutory, and geographical limitations on our present commissions.

A. V. Gillou, chief engineer of the Wisconsin Public Service Commission, speaking before the American Institute of Electrical Engineers, very aptly stated that our present commissions were the result of evolution governed by local tastes—an evolution dating back to the regulation of toll bridges and turnpikes.

WHILE there is uniformity of aim for regulation, there is a wide variation among the states regarding methods to bring about such regulation, and the jurisdiction given the regulating bodies.

Some public service commissions do not have "teeth" in their powers and consequently are able to pass only more or less perfunctory judgments or opinions on the arguments brought before them. Other commissions can initiate investigations and are able to enforce their decisions. Lately a movement has come to give the regulatory bodies discretionary powers that are little short of state operation and control.

I have a plan that I call the Model Commission. It is a strengthening and broadening of our present arrangement for utility regulation. No new overlapping Federal Bureau is necessary to regulate interstate utilities. Neither need there be governmental owned and operated utilities with their accompanying waste and opportunities to build up political machines. Since regulation is essentially a local matter, the Model Commission is shaped to fit local needs. Yet it has teeth!

THE number of commissioners required to man each state's Model Commission can be determined best from past local experience. The amount of business to be handled is the ruling factor. Not all states have the same utility facilities, same population, or same psychology.

Delaware has no commission. The commission memberships of the other forty-seven states and the District of Columbia range from one (the Oregon experiment) to seven. Thirty-eight commissions have three members, either full-time or part-time.

Neither do I recommend any certain salary to be paid each commissioner, although the public is interested in keeping the governmental expense to the minimum. Some persons advocate paying a large enough salary to attract men of caliber. Others prefer to make the job unattractive to politicians by making the pay low. I take the former stand and would set up other safeguards against political exploitation.

A COMMISSIONER should be a man with trained judgment and wide experience, such as an engineer, attorney, or financier of standing. If such men exist, they will be found to have such a lucrative private practice established that some "inducement" must be offered to make them servants of the public. One state now pays as high as \$15,000 a year. The lowest is \$10 per diem. Roughly three fifths of the states pay their public service commissioners between \$4,000 and \$7,500 a year. So, pay enough, according to local standards, to attract commissioners worthy of the positions.

A MODEL STATE COMMISSION FOR UTILITY REGULATION

Commissioners should be appointed to the Model Commission for terms of six years, with reappointment if desired. The tenure of office for public service commissioners now varies from two to ten years. The majority serve six years. It is important that the term of office be long enough for the incoming commissioners to become thoroughly acquainted with their duties and still have a reasonably long period of useful service. The dates of expiration of the individual terms should be so staggered that the commission is a continuous body.

THE commissioners should be appointed by the governor. This places the nominal head of the state government in direct control. If desired, the legislature may reserve the right to approve appointments. A large number of states have statutes vesting appointment of commissioners in the governors, with or without approval of the legislatures or councils. In many states, the commissioners run for election. This last practice is to be condemned because the mass of voters do not have the means of sifting the qualifications of the candidates.

The Model Commission is not a government unto itself. It should be answerable to and be required to report its actions to the governor, and be able to defend itself before the legislature. Appointment is the most effective means of securing this control.

AT present, the methods of removing the commissioners are almost as varied as the salaries paid. A number of states have removal vested in the governor, with or without limitations on his power. Impeachment is used in other states. Others have variations of recall, action by the legislature, and the civil courts. Several states have no statutory provisions for removal of public utilities commissioners.

To be consistent with the method of appointment, the members of the Model Commission should be removed by action of the governor. Nevertheless, safeguards such as requiring approval of a legislative committee should be enacted to prevent the summary removal of a commissioner for other than malfeasance.

Might I say here that it would be well for the commissioners sitting on the Model Commission to be bonded for the faithful performance of their duties, much the same as any other state officer who has to administer large sums of public money? The expenditures made by the commission are very much of public interest.

IN the foregoing, only the commissioners themselves have been considered. They should appoint their department heads, such as chief engineer and auditor, and delegate proper authority to each. The subordinate, working part of the commission



Q "SOME public service commissions do not have 'teeth' in their powers and consequently are able to pass only more or less perfunctory judgments or opinions on the arguments brought before them. Other commissions can initiate investigations and are able to enforce their decisions."

should be a continuous body, avoiding unnecessary turnover of the payroll, and keeping a trained force of examiners on hand. If state policy directs, this unit of the commission may be under civil service rules.

The working force should be hired for its experience and education and not for the family, or party connections of its members. Nor should assessments be levied for campaign purposes, because this injects politics in its most vicious form.

The Model Commission must be kept away from party politics.

A constitutional amendment creating the commission, defining its powers, and regulating its membership makes tampering more difficult than an enactment by the legislature. The creating act should state very plainly that it is the duty of the governor to maintain a bipartisan or nonpartisan balance of power in the commission. This protects commissioners against ousting because of change of party in power.

A CERTAIN middle western state had a public utilities commission built about such a plan. There were five commissioners serving 6-year staggered terms. The law required the commission to be bipartisan. This provision was carefully observed by the governor who took care that no more than three of his own party sat on the commission. The custom was carried to a rather amusing extreme in this way. At one time, the commission had so much field work that the jobs were filled in the best way possible. If the applicant for a position on the valuation staff did not have a marked political preference, he was

"assigned" a party in order to maintain the balance.

But, in the Year of Our Lord, the nineteen hundred and thirty-second, and of the New Deal, the first, the electors of this state fell in with the times and changed political color, changing the minority into an overwhelming majority.

So hungry were the politicians after having to eat scraps for twelve years, that the legislature armed with the "mandate from the polls" began to grasp at any pretext to create positions for "good party men." Almost anybody was willing to be a commissioner, and many were known to be willing to content themselves as examiners for the commission.

Two schemes were tried. A bill was passed empowering the governor to remove any appointed state officer at his pleasure. This allowed him to strike directly at the appointees of his predecessors and destroy the continuity of the commission. The other plan was to abolish the commission, lock, stock, and barrel, and recreate it under another name. This was even more vicious because in addition to upsetting the commissioners themselves, it left no doubt as to the destruction of the working force with its trained personnel. It is important that rashness of this sort be prevented.

WHERE will the commission get the money to operate?

In some states, all the income comes from the general tax fund. This is well if there be little business to transact. But if the commission be large and its activities wide, a lump sum appropriation is staggering, and results in subterfuge. The commission

Terms of Office of Commissioners

"IT is important that the term of office be long enough for the incoming commissioners to become thoroughly acquainted with their duties and still have a reasonably long period of useful service. The dates of expiration of the individual terms should be so staggered that the commission is a continuous body."



asks for a larger sum than necessary, well knowing the request will be drastically pared. Such bargaining is unsatisfactory in that appropriations contingent on tax anticipations might be inadequate for the satisfactory conduct of the commission's business.

A recent trend is to place a "regulatory tax" directly on the utilities. In one state, this tax may be placed at the discretion of the commission. A statewide assessment on the value or gross receipts of the utilities is unfair because all companies may not receive a proportionate share of the commission's attention.

A COMPROMISE is to have the administrative force supported from the general fund and the special work such as audits and appraisals charged directly to the utility. This charge is allowed to be amortized as an operating expense over a period of years. A little reflection will show that this throws all the expense back on the taxpayer, only he does not know it. However, the expense of the commission is placed more directly on the community profiting or losing by the commission's attention.

One state has a variation of the last

method. When billing the utilities, a fixed percentage is added to the salaries of the field auditors and engineers. This percentage is for the supervision by the chief engineer and auditor, attorney's expenses at the hearings, etc. The legislature appropriates a lump sum from the general fund and sets the maximum amount of fees to be earned by the commission during the next biennium.

WHEN hard times came along, the governor requested each department to go easy on its withdrawals from the general fund. Then what happened?

The office force had to live, so the burden was thrown on that percentage extracted for the services of the field crew. Men were kept on the utilities' payrolls whether they had work or not. To be fair, it was publicly said that more work was in sight and the commission wished to hold its trained force together. It got to the point where the men were denied their vacations because the state and not the utility had to pay them. Such a practice cannot escape unnoticed, and does not promote confidence on the parts of the utility companies.

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I do not advocate loading the salaries of the field crew. Without the loading, the commissioners have no monetary interest in maintaining a large and expensive force for direct investigations.

THE Model Commission should be as self-supporting as possible.

Expenses that cannot be directly distributed to a specific enterprise should be covered by general taxation.

A group of citizens registering a complaint against a utility should be required to post a bond to cover the expenses of the preliminary investigation by the commission. This would eliminate a number of petty complaints and demands upon the generosity of the commission.

However, if such a preliminary investigation discloses a necessity or a desirability for a detailed examination of the utility—with the probability that the utility would lose—the company should be required to advance funds to reimburse the bond along with a standard and reasonable amount of interest. This will keep each utility on the alert to maintain its public relations.

The expenses of the commission when directly investigating a utility should be borne by the stockholders and/or consumers. The utility should be required to reimburse the commission periodically for its special examinations, audits, and appraisals.

WHERE an unjust claim has been made against the company, the commission expense borne by the utility should be amortized as an operating expense and be considered when making rates. When investigation shows the utility to have been at fault,

the commission's expense should be borne by the stockholders of the company. Such expense can be charged to earned surplus or a fraction can be deducted from the regular dividend checks over a period of years.

These plans applied to major investigations such as rate cases and appraisals would tend to keep the commission free from cases which did not clearly justify themselves. At the same time the utilities would be warned to have a conservative rate and dividend policy. Furthermore, if losses in dividends were possible, the stockholders would take a more active voice in the management of their companies.

As in the courts, each side to the controversy should stand its own costs of counsel and the loser pay the commission—in one form or another.

COSTS of handling reports, requests for certificates, and other items of routine nature may be reimbursed through a system of filing fees. This places the burden upon those "requiring" the services of the commission. Costs of hearings, reporting, etc., can be handled in the same way. The filing fees should not be arbitrary charges, but should closely approximate the cost of the service. If necessary, bill the utilities on a basis of time and material.

Investigations initiated by the commission for its own information should be charged to the general tax fund.

Care must be taken to prevent the Model Commission from being such an elaborate bureau that it requires too much money to operate. A valuation engineer once told me that his

A MODEL STATE COMMISSION FOR UTILITY REGULATION

company could make an appraisal at about a sixth of the expense caused by a certain commission. The main item of the expense of the commission was the elaborate array of forms required—form almost taking precedence over fact.

At each regular meeting, the legislature should analyze the past expenses of the commission and scrutinize the program anticipated for the ensuing period. With these facts and with the recommendations of the budget bureau, the assembly can set the fees to be earned by direct investigations and appropriate funds to cover the estimated deficit. The routine filing fees except where proven unreasonable should be outside the boundaries of legislative meddling.

With these legal maximums and boundaries for fees and expenditures, there should be still another source of relief to the distressed defendant—the courts. Having given the Model Commission such wide discretionary powers, some umpire should be available, when the legislature is not in session, to examine the expenses of investigations and eliminate excessive items. It is to be hoped that this procedure will be unnecessary. Of course it is always possible to go to the courts to overthrow or uphold any decision of the commission, or even decide upon the constitutionality of the system.

A GUIDE to the reasonableness of the costs of investigations is the experience of the commission in the past with the several utilities under its jurisdiction. Still a better guide is the experience of other utility commissions. This leads up to the thought of having more and better coöperation between the various state commissions.

The first step is to have a free exchange of information between the different regulatory bodies. With the present strong idea that the business of a public utility is everybody's business, such information is not confidential.

The plan I advocate is for the maintenance of a central information bureau with a competent statistician in charge. This statistician and his bureau is not to dictate to the commissions, but to aid them by having good information always at hand. The National Association of Railroad and Utilities Commissioners could be the advisory board.

If a way could be found to get true and correct returns, private and commercial investigators should be required to report their findings and expenses.

EACH commission would send in copies of its hearings, findings, opinions, exhibits, unit cost developments, and all other business that is of more than small routine nature.



"A CONSTITUTIONAL amendment creating the commission, defining its powers, and regulating its membership makes tampering more difficult than an enactment by the legislature. The creating act should state very plainly that it is the duty of the governor to maintain a bipartisan or nonpartisan balance of power in the commission."

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Commission reports of investigation expenses could be analyzed and trends developed to give guides for intelligent legislative control.

The bureau is there only to collect and analyze the information sent in by each commission; the information to be indexed and cross-referenced for ready use. As data began to pile up, suitable comparisons should be made, and standards recommended for investigating the various kinds of utilities operating under different conditions in each section of the country.

When an answer to a question is not in the files of an individual commission, the records of the central library could be searched. This plan would tend to keep the investment of each commission down to the more essential texts and papers.

THE bureau could recommend standards for the reports and procedure of the commissions, thus facilitating the work of indexing and comparing. Furthermore, such recommendations tend to bring about more standardization and coöperation, which I believe to be the need at this time. To function properly, the various Model Commissions must be standardized as to aim and jurisdiction, but still maintain local option.

Now why cannot a centralized information bureau and library be established? The first step to hurdle is local pride and the distrust of each state for every other.

This distrust stands in the way of regulation and investigation of interstate utilities. If not stopped very shortly, a Federal commission or government ownership will result. The plans offered in the Model Commis-

sion are to prevent another Federal encroachment on state's rights. Let the Interstate Commerce Commission, Federal Trade Commission, and the Radio Commission keep in their own premises.

TO illustrate the value of coöperation, we shall consider a couple of cases handled by a certain state public service commission.

This commission appraised an electric company that had its greatest load in one state, its largest generating capacity in another, and the most consumers and line mileage in the third adjoining state. In order to determine the investment necessary to serve the consumers in its own state, the commission rightly felt that it should know about the investment in facilities in the other states. Permission was secured from the other two commissions to enter their jurisdictions provided copies of the appraisal were given them. Having different ideas of regulation these commissions would not advance any money. The initiating state commission charged the entire cost to the utility.

Although the company was owned outstate, its operating headquarters and records were where the first commission could reach them. The value of the property used and useful to each state was calculated easily enough. The inventory showed the cost of reproduction and also was useful in allocating the book values—the estimated investment being priced item by item.

This showed a certain amount of coöperation between the commissions but not as much as I am recommending under the Model Commission.

A MODEL STATE COMMISSION FOR UTILITY REGULATION

At another point in this aggressive state, an electric utility had a network of transmission lines crossing the state boundary in four different places. The operating headquarters, records, and tie-lines were located in another state in which the railroad commission had no say-so over electric utilities.

The commission making the appraisal was allowed to cross the state line to get at the books, but not to make an inventory of the property outside its own state. The allocation of used and useful generating and transmission property was made on the basis of book records—which had a number of missing links. The missing information was presumed to be scattered through the offices of the mother, grandmother, and great-grandmother companies, each located in different states.

What a mess!

Coöperation by joining forces and exchanging information enables commissions to reach far beyond the territorial limits of their jurisdictions. If the coöperating states did not need the information just at the time, the records nevertheless are available for future use. The parent or subsidiary companies would have to foot their shares of the bills along with the rest.

Along with exchanging information with other commissions, the Model Commission should undertake to educate the people in its own state. I go so far as to advocate some kind of a press agent or advertising manager, if you want to call it that.

There is little understanding among

the masses of the methods used by public utilities commissions and what the rate base really is. In these times, the public cannot understand why rates have not been lowered to conform with the reduction in commodity prices. With the utilities being of public interest, it is the duty of the commissions to remove any mystery surrounding their actions.

From time to time, the Model Commission should issue unbiased articles to the newspapers. These statements should show in simple language the methods of utility financing, relation between income and fixed investment, use of appraisals, the determination of the rate base, and above all how the commission is helping the public and how the public can help the commission.

When a utility tries to justify its position, the public takes the explanations as so much "hot air." If the public believes the commission to be active in its behalf, confidence can be gained, regained, or kept as the case may be.

Now this activity in behalf of the public need not always be rate slashing and nuisance regulations. The Model Commission should be an umpire and "coördinator," trying to maintain enterprises that can afford a stable and well-paid operating force without an unreasonable salary gap between the regular and executive payrolls, that can provide adequate service at reasonable and nondiscriminatory rates, and be a sound investment.

This statement is not as paradoxical as it seems!

The second and concluding article in this series will be published in the next issue of PUBLIC UTILITIES FORTNIGHTLY, out August 27, 1936.



OUT OF THE MAIL BAG

The Detroit Plan

YOUR review of "The Detroit Plan," as discussed in my January article in the *Western Gas*, has just come to my attention.

I appreciate the fairness and clarity of your comment, and particularly the fact that you approach a departure from conventional utility practice with dispassionate open-mindedness.

As to the two phases of the plan concerning which you raise certain questions, I would like to make the following comments:

In the original article, the matter of establishing the "base earning" was passed over rather lightly. A fundamental basis from which the size of a gas utility can be determined with the least possible grounds for theoretical differences is the *number of consumers* to be served. If we were to allow a utility to make an earning on the money spent in building the plant we would, in effect, put a premium on extravagant overelaboration of the plant. Any valuation method leaves wide open the question of efficiency of design and degree of obsolescence. On the other hand, if the allowable base earning is measured by the *number of consumers*, it is founded on the best established and least debatable fact indicative of the size of the utility.

In establishing the unit "base earning" for Detroit, the point arrived at was \$10 per consumer. I would not suggest this unit as being of universal application. The proper unit figure would vary with the size of plant, density of population, or any abnormal factors. I would say that a proper unit "base earning" allowance might have some considerable range with reference to such variables. But, after a sufficient study of similar cases and the establishment of appropriate "base earnings" on a "per meter unit bases," a scale of unit "base earnings" might very properly be developed that would be fairly applicable to gas utilities generally and this, in connection with the profit-sharing arrangement would make a simple method of regulation that would be automatically and promptly effective.

Another question you raise, is with regard to "refunding" the dividend. In this connection, I would quote the language from the consent decree by which the circuit court finally approved the Detroit Plan and defined the terms of the dividend:

SECTION V

This division to domestic consumer shall be in the form of an annual dividend ascertained after the close of each fiscal year. Domestic consumers entitled to a dividend shall be defined as all consumers of gas for cooking or water heating, in single family or two family dwellings, or in single family apartments which are separately metered.

SECTION VI

Said dividends shall be paid to such domestic consumers pro rata to the amount paid by them for gas purchased up to a maximum of 60,000 cubic feet per year or its equivalent.

SECTION VII

Earnings and dividends will be ascertained and announced as soon after the close of each fiscal year as practicable, and the dividends paid within ninety days after the close of the fiscal year. Payment may be made by check to the order of consumer, or by a credit on the consumer's account, with the defendant company.

All dividends not claimed by consumers within two years from the date the same becomes payable shall be barred and the sums so barred shall be added to the consumers' dividend fund, it being the intent and purpose of this agreement that consumers' dividends so used shall constitute a fund solely for the benefit of domestic consumers, as defined, and that no part thereof shall revert to the defendant company.

FROM these terms, which were not quoted in full in my original article, it is apparent that the dividend may be paid by a simple system of credits on future gas bills at the close of the fiscal year, or by checks mailed out with subsequent gas bills, but that the company is relieved from ultimate responsibility in individual cases by placing the burden on the consumer for making claim for unpaid dividends and further providing that after a 2-year interval any amounts not paid shall revert to a general fund for the benefit of all consumers. This simplification is not possible in the case of a legal refund of impounded money made under court order but in this case it is believed will prevent the accumulation of an unwieldy volume of unpaid dividends.

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It might be in order, with reference to §§ V and VI above, to elaborate just a little on the reason why under this plan the dividends were made solely applicable to domestic consumers using less than a certain maximum amount of gas.

Industrial gas consumers, large commercial plants and even househeating consumers use gas because it represents a definite financial saving in their fuel account. This business must be secured on a basis competitive with other fuels with a slight margin for convenience, and this potential fuel competition automatically regulates rates at levels necessary to secure the business.

On the other hand, the users of this service for cooking and water heating in residences have in a large degree no comparable alternative and are at the mercy of the utility holding the monopolistic franchise privilege of

serving them. It is in behalf of these users that rate regulation is necessary to secure fair and equitable treatment. Under the Detroit Plan the dividend is so devised as to serve as a reduction in fuel cost to these specific consumers and act as an effective rate regulation in their behalf. The 60,000 maximum assigned in § VI is about the quantity level at which domestic users of gas for cooking and water heating will be fully supplied and all additional gas to the same consumers would in general be for househeating purposes. Any excess above 60,000 is not considered a basis for dividend, for the reason just given.

Negotiations under this plan for the establishment of the initial rates, as forecast in my article of last January, are now in progress and the rates will be announced within the next three or four weeks.

—F. P. FISHER

The Power in the Firmament

(From "Ain't Nature Grand" by Bob Harrows in *The Argosy*.)

You have heard a lot about hydroelectric projects, but what do you know about "aeroelectric projects?" Nothing? That's what I thought. Well, pull up your chair, unbutton your ears, and be hereby instructed.

Professor Frank Debenham, of Scott Polar Research Institute at Cambridge, England, predicts that if the art of transmission were developed to the point where we can shoot power around the globe just like passing cake around the table, the South Pole will be something worth fighting for. (Berlin and Rome papers please copy.) The professor allows that the constant gales that rage across the icy wastes on the bottom of the world could be harnessed and put to work pumping the organ in St. Paul's Cathedral, lighting up Broadway, running little junior's trains all over the house until you go crazy, or curling a stout lady's hair in Perth Amboy. "For example," says the professor, "over the ridge of Adelie Land a river of air 50 miles wide blows constantly at gale force and forms a cataract greater than any water force in the world." And that, my friends, is a lot of wind.

But our own Dr. C. G. Abbot of the Smithsonian Institution in Washington, D. C., goes his British colleague one better. Why bother with the silly old earth at all, says he, what's the matter with the sun? (Nothing, says I, aside; it's a perfectly good sun except that it has a bad habit of staying in on Sundays and holidays.) Dr. Abbott has demonstrated a new steam engine which uses the sun's power. Last summer at Mt. Wilson Observatory in California he cooked meals for himself and associates. His associates testified that the machine worked fine. (They ventured no comment on the doctor's cooking.)

Doc Abbot's machine consists of a concave aluminum mirror 6 by 2 feet which focuses light on a vacuum tube containing a black liquid, which he calls "chlordiphenyl" (probably a nickname). This stuff will boil at 188 Fahrenheit and does so when Doc puts the thing out in the sun. The vaporized fluid circulates through an ordinary steam engine and can develop either power or heat.

And just to show that the wise men are not overlooking the gas industry, here come Professors Adel and Slipher of Lowell Observatory who tell us that all the natural gas needed in the United States for utility use for the next 21 billion years is contained in the planet Neptune. They might have added that it will probably stay there.



Financial News and Comment

By OWEN ELY

Utility Earnings Continue Upward Trend

WITH the weekly output of electricity in the United States continuing about 15 per cent over last year, utility earnings are maintaining their sharp recovery, except where rate cuts and excessive taxation have imposed too heavy a burden. Many refunding operations are now being reflected in comparisons of current earnings with last year's. Latest monthly statements for some of the larger systems, on a consolidated basis, make the following showing:

American Light & Traction in the twelve months ended May 31st earned \$1.45 per share on the common stock, compared with \$1.11 in the previous year, a gain of about 30 per cent.

American Gas & Electric in the same period reported \$1.97 against \$1.76, an increase of 11 per cent.

American Power & Light reported \$5.08 earned on the preferred stock against \$3.23 last year, an increase of some 56 per cent. The deficit per share on the common stock was 21 cents compared with a deficit of \$1.31 last year.

American Water Works & Electric Co. earned \$1.49 on the common stock against 86 cents, an increase of 74 per cent. The company has decided not to resume dividend payments on the common stock at this time. In a letter to stockholders President Porter stated that "the involved and complex provisions of the recently enacted Federal tax bill . . . made it unwise, in the opinion of your directors, to declare a

dividend on the common stock of this company until the effects of the bill can be ascertained."

Commonwealth & Southern Corporation earned \$6.90 on its preferred stock in the twelve months ended May 31st, against \$5.28 last year; a balance of 4 cents was earned on the common.

Electric Power & Light reported \$5.92 earned on the first preferred, against a deficit of 15 cents last year; United Gas Corporation, its subsidiary, reported \$5.45 on its second preferred stock (owned by Electric Power) compared with \$1.42 last year.

NATIONAL Power & Light Co. reported 88 cents a share earned on the common stock, against 83 cents last year. Earnings of this company have been relatively more stable than some of the other Electric Bond & Share systems, and it has continued to pay dividends through the depression.

Public Service Corp. of New Jersey reported \$2.42 on the common stock, against \$2.72 last year; however, net income for the month of May nearly equaled that of last year.

Commonwealth Edison for the five months ended May 31st reported \$2.99 per share against \$3.02 last year; for the month of May net income increased about 27 per cent over last year.

Consolidated Gas, Electric Light and Power Co. of Baltimore reported \$2.17 per share earned in the five months ended May 31st, against \$2.02 last year; for the twelve months ended that date, \$4.55 was reported, against \$4.15.

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President Wagner has stated that a reduction in electric rates applicable to residential and commercial customers, effective in June, will reduce revenues by more than \$800,000 annually. About one half of this would be reflected in earnings for the current year. Except as offset by gains in business, the effect on this year's annual earnings would be in the neighborhood of 30 cents per share. While Consolidated Gas early in the year showed some large gains over the previous year, in the week ended July 11th an increase of 1.8 per cent was shown.

Detroit Edison in the twelve months ended June 30th reported \$8.53 compared with \$4.38 last year. The present dividend rate is \$6, and the stock is quoted about 145-50.

The United Light & Power System

UNITED Light & Power Co. was organized in 1923 as successor to United Light & Railways Co. of Maine (incorporated in 1910). The company directly controls some sixteen operating companies; and a wholly owned Delaware subholding company (United Light & Railways Co.) controls four holding and two operating companies. Two of the former—Continental Gas & Electric Corporation and American Light & Traction Co.—constitute important systems in themselves, and contribute a large proportion of United Light & Power's gross revenues.

United Light & Railways Co. owns only about 52 per cent of American Light & Traction, but Continental Gas & Electric is about 99 per cent owned. Other operating company subsidiaries are fully owned with the exception of Northern Natural Gas Co., in which the interest amounts to only 35 per cent. American Light & Traction owns practically the entire common stocks of its operating units.

The approximate size of the system is indicated by the property account item (1935 balance sheet) of some \$452,000,-

000. Properties include forty-eight principal power stations, with generating capacity of 704,000 kilowatts of steam electric and 7,400 kilowatts hydroelectric; gas properties include twenty-four water gas, twelve coal gas, and four butane gas plants; while traction properties include 379 cars, 266 busses, and 38 trolley coaches. Operating companies serve communities in midwestern territory—Michigan, Wisconsin, Illinois, Indiana, Ohio, Kansas, Iowa, Missouri, Nebraska, Oklahoma, Tennessee, West Virginia, and Texas.

UNITED Light & Power Co. has perhaps been slightly overcapitalized, although the two affiliated systems, Continental Gas & Electric Corp. and American Light & Traction Co., are soundly financed. United Light & Power Co.'s earnings on its first preferred and common stocks have been as follows in the past decade:

	First Preferred	Common
1935	\$4.02	d. \$.34
1934	1.64	d. .75
1933	2.43	d. .60
1932	6.95	.16
1931	13.03	1.21
1930	17.44	1.98
1929	16.62	2.29
1928	*	1.36
1927	*	0.76
1926	*	0.27

There are outstanding 600,000 shares of convertible preferred and 3,473,000 Class A and B common, all three issues being traded on the New York Curb. The preferred, on which back dividends now amount to about \$26, is selling currently around 67, having advanced this year from 29½. The Class A common (outstanding in much larger amount than the Class B) is currently selling around 8½. The B, much less active, sells about a point higher presumably due to having sole voting power.

United Light & Power's consolidated net income for the twelve months ended May 31st was \$3,480,320 compared with \$804,076 in the previous year. Earnings on the first preferred increased

* Different capitalization.

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from \$1.34 to \$5.80 a share, and while nothing was earned for the common stocks, indications were that current monthly returns (if available) would show something for the junior issues.

American Light & Traction Co. was organized in 1901 and has paid dividends continuously on the common stock since 1904. During the years 1911-19 \$10 in cash and 10 per cent in stock was paid annually, in 1927 a stock dividend of 50 per cent was paid, and in 1930 both preferred and common stocks were split four-for-one. Through subsidiaries, the company distributes gas in Detroit, Ann Arbor, Muskegon, and Grand Rapids (Michigan), Milwaukee and Madison (Wisconsin), and San Antonio, Texas, gas accounting for about 72 per cent of gross revenues. Sales of electricity in Madison amount to about 14 per cent of gross, and 10 per cent is obtained from coke and 3 per cent from transportation. The company owns about a one-fifth interest in Detroit Edison Co., the 257,841 shares owned being slightly less than one tenth of a share for each of its own shares outstanding. (A \$5,000,000 bank loan stood against part of this stock as of Dec. 31, 1935.)

American Light & Traction's earnings for the twelve months ended May 31st were \$8.97 per share on the preferred stock compared with \$7.24 last year; and \$1.45 on the common against \$1.11. Dividends have been regularly paid on the common stock during the depression, although the rate was gradually reduced from the \$2.50 level of 1927-32 to the present \$1.20 rate. Current prices and yields on the company's stocks are about as follows:

	Price about	Yield about
Preferred (\$1.50)	29	5.2%
Common (\$1.20)	24	5.0

Continental Gas & Electric Corporation was incorporated in 1912. It controls Columbus Railway, Power & Light (which in turn controls five operating companies), Iowa-Nebraska Light & Power Co., Kansas City Power & Light

Co., and several smaller companies. Kansas City, Mo., Columbus, Ohio, and Lincoln, Nebraska, are among the larger of the 864 communities, in seven states, which it serves.

In addition to subsidiaries' debt, the company has \$52,000,000 debenture 5s of 1958 and \$18,857,900 7 per cent preferred stock. Both issues have enjoyed a rapid advance in the past year due to the recovery in earning power. The bonds advanced from a depression low of 33 to their 1936 high of 93½ and the 7 per cent prior preferred stock (on which dividends have been regularly paid) has recovered from its 1933 low of 29 to its recent level around par. In the twelve months ended May 31st the system's fixed charges were covered 1.49 times, against 1.29 for the previous year (coverage of both fixed charges and preferred dividends was about 1.28 this year, against 1.11 last year).

Operating Company Preferreds with Back Dividends

THE utility industry has financed a large part of its expansion program during the 1921-29 decade with preferred stock issues of both operating and holding companies. Back dividends have now accrued in some of the weaker systems, and as previously pointed out in this department the new tax law may expedite plans for clearing off arrears on many of these stocks so that at least part of current net income will be freed of the new surtaxes on undistributed corporate income. It is obvious that the arrears on preferred stocks of operating companies and intermediate holding companies are likely to be liquidated before parent companies take action on their own issues.

Standard Statistics in its publication, "Facts & Forecasts," has listed the principal back-dividend preferreds in this group, indicating the amount of back dividends, 1935 earnings, and current prices. The list of issues, rearranged by systems, includes the following, with approximate arrears indicated:

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Electric Power & Light	
United Gas \$7	\$26
Utah Power & Light \$7	21
" " " \$6	18
Associated Gas & Electric	
Broad River Power \$7	28
Cities Service	
Empire District Electric \$6	23
Arkansas Natural Gas 6%	3
Empire Gas & Fuel \$8	32
" " " \$7	28
" " " \$6.50	26
" " " \$6	24
American Power & Light	
Minnesota Power & Light 7%	5
" " " \$6	4
" " " 6%	4
International Hydro-Electric	
Green Mountain Power \$6	5
Middle West Utilities	
Michigan Public Service 7%	13
" " " 6%	11
West Texas Utilities \$6	8
Wisconsin Power & Light 7%	15
" " " 6%	13
Central Illinois Public Service \$6	15
" " " 6%	15
Central Power Co. 7%	13
" " " 6%	11
Central Power & Light 7%	17
" " " 6%	15
Kentucky Utilities Co. 7%	3
Michigan Gas & Electric 7%	17
New England Public Service	
Central Maine Power 7%	8
" " " 6%	7
" " " \$6	7
Niagara Hudson Power	
Mohawk Hudson Power \$7	5
" " " 2d. Pfd. \$7 ..	14
North American Light & Power	
Illinois Power & Light \$6	18
" " " 6%	20
Standard Power & Light	
Wisconsin Public Service 7%	5
" " " 6 1/2%	5
" " " 6%	5
California-Oregon Power 7%	10
" " " 6%	8
" " " 6% (1927) ..	8
Utilities Power & Light	
Derby Gas & Electric No. 7	3

the great activity of the Federal government in hydroelectric projects during the depression, the increase during the present administration (three years ended January 1st) amounted to less than 2 per cent. However, revision of previously published figures for capacity of waterwheels in some states partially accounts for this showing, it is indicated.

American Telephone Covers Dividend in Second Quarter

FOR the first time in some four years, American Telephone and Telegraph Co. is fully covering its dividend (on a consolidated Bell System basis). For the three months ended May 31st, \$2.43 a share was reported, compared with the \$2.25 dividend requirement; and for the twelve months ended May 31st, slightly over \$8 is shown. This seems to indicate that the dividend will be approximately covered for the calendar year 1936, although the 3-month period ending May is the most favorable season of the year and the third quarter (vacation period) is normally the poorest.

These results were accomplished despite a gain of nearly 25 per cent in Federal income taxes in the three-months' period and about 15 per cent for the twelve-months' period.

The report for the parent company made a poorer showing, however. The comparison (on a slightly different monthly basis) is as follows:

Consolidated System Basis	1936	1935
Three months ended May 31st	\$2.42	\$1.72
Twelve months ended May 31st	8.13	6.00

A. T. & T. (only)

Three months ended June 30th	1.97	1.55
Twelve months ended June 30th	7.40	6.37

There has been considerable discussion regarding Telephone's charges for depreciation, and the possibility that they might be reduced. Depreciation is not separately shown in the interim reports, but it is interesting to note that Bell System expenses (including depreciation) in the quarter ended May 31st

U. S. Hydroelectric Capacity Practically Unchanged

TOTAL installed horsepower in hydroelectric plants as reported by the U. S. Geological Survey showed only a negligible increase January 31, 1936, compared with a year earlier. Despite

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increased only about \$4,000,000 against a gain in gross of about \$18,500,000, which seems to indicate the possibility of a substantial cut in the formerly generous allowance for depreciation and maintenance.

New York Telephone Co. has "accepted" the recent rate readjustments ordered by the public service commission. The annual reduction in revenues was estimated at \$4,152,000. Of this amount about one third consists in the reduction of intrastate toll rates, against which there might be an offsetting gain in business. Assuming, however, that the total amount of revenue was lost to Bell System net income, the loss to stockholders of A. T. & T. would amount (after adjustment of income taxes) to approximately 19 cents a share. In view of current rapid increase in business, this does not appear a serious factor in 1936 earnings estimates.

Notes on Refunding Operations

UTILITY bond financing in the fortnight ended July 17th aggregated \$58,450,000, as follows: \$5,600,000 West Virginia Water Service Co. first 4s of 1961 at par; \$1,250,000 Copper District Power Co. first A 4½s 1956 at 96½; \$34,000,000 Narragansett Electric Co. first "A" 3½s of 1966, at 102.83; \$9,000,000 Sioux City Gas & Electric Co. first 4s of 1966 at 98½, and \$1,500,000 debenture 3-5s at 100-101; and \$7,108,000 Bangor Hydro-electric Co. first 3½s of 1966, at 104½.

The Dow-Jones calendar of SEC registrations and effective dates includes the following: July 23rd, \$13,875,000 Indianapolis Water Co. first 3½s (Morgan Stanley & Co., Inc.); \$10,000,000 Arkansas-Louisiana Gas Co. first 4s (Edward B. Smith & Co.).

Details of the \$30,000,000 offering of New York Edison Co. first lien and refunding 3½s (pending for some time since the "effective date," twenty days after registration) are now available. Morgan Stanley & Co., Inc., will sell

\$22,000,000 of the issue to a group of subunderwriters headed by Blyth & Co., Inc. Presumably now that underwriting contracts have been entered into the bonds will be offered at an early date.

New Equipment Needed?

THE following is quoted from the *New York Journal of Commerce*:

With electric power output at a new high record, increased public utility purchases of generating and transmission equipment probably cannot be delayed much longer.

Even those who scout the possibility of a power shortage concede that increased generating capacity will be needed this fall in several sections of the country if the output of electricity should exceed the 2,100,000,000 kilowatt-hour mark. Last week, power production reached 2,005,000,000 kilowatt hours.

Utility companies will have to issue specifications for replacement and repair needs for fall installation very soon. Plans for new generating equipment to be bought in 1937 will have to be completed before the end of the year.

Electrical manufacturers anticipate a steady increase in equipment purchases during coming months, therefore. The rate of buying probably will be accelerated after the national elections.

Sales Prospectus May Be Shortened

IN PUBLIC UTILITIES FORTNIGHTLY of July 16th (page 96), reference was made to the high cost of registering small security issues. Some reduction in future costs is now indicated through possible shortening of the prospectus. Harold H. Neff, director of the Division of Forms and Regulations of the SEC, has indicated his opinion that the commission's rules permit summarization of data filed in registration statements, with the exception of financial statements required to be furnished. The registration statement, containing the full detail, is a public document open to inspection, and copies are easily obtainable at small expense. According to Mr. Neff, where facts stated in the registration statement are reducible to a

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more general statement, the latter will suffice for the prospectus.

While there has been some tendency to shorten prospectuses as compared with the original documents, most of these are still quite voluminous and it seems probable that considerable further condensation might be safely effected, particularly if specific reference to the registration statement is made. The recent prospectus of the Narragansett Electric Co. contained 43 large pages, despite the relative simplicity of this system.

In the writer's opinion a defect of the present prospectus as compared with the old-fashioned circular is the failure to emphasize "number of times interest charges earned." It is usually necessary for the investor to ferret out this information, whereas under the old régime the figure was clearly stated in the offering advertisement and could be seen at a glance. Admittedly, the great majority of present utility offerings are bought by institutions whose experts can quickly appraise new issues, but the individual investor is somewhat handicapped both by the difficulty of locating this essential figure, and by the celerity with which most new offerings move "out of the window" early on the day of issue. There seems to be no happy medium regarding new offerings—either they are snapped up in a few minutes by hungry institutional buyers or else (as seldom occurs) they prove to have been priced slightly too high, in which event it may take days to "move the issue."

Associated Gas Surrenders Books

ASSOCIATED Gas & Electric Co. has finally consented to allow examination of its books in connection with the litigation involving the company's solvency. Some ten different kinds of records will be scanned by the accountants. The varied troubles of this system are amusingly described by the *New York Times*:

The circulation of the official books of

the Associated Gas and Electric Company in recent months has been about as rapid as that of the volumes in a neighboring lending library. Attorneys for a group of creditors who have been pressing in the courts to prove the company insolvent, and therefore subject to involuntary reorganization under the Bankruptcy Act, put accountants in the company's offices last week to go over the books. But first the company has to get the books back from the Federal government, which had them in the interests of tax matters; in order to give the books to the government the company had to obtain them from the grand jury in a proceeding thrown out of court; the grand jury, in turn, received the books from the Federal Trade Commission, which needed them to complete investigatory work begun in 1926. To carry on business, of course, the company has been obliged to maintain a duplicate set of records. In the present instance officials of the company insist that the books will show the company to be solvent; previously, they offered to form a committee to determine whether there should be reorganization, with the petitioning creditors and the company to be equally represented and with other places on the committee given to important investors. The petitioners turned down the offer. If, somehow, the company could manage to collect the usual three-cents-a-day lending-library fee for the use of its books, the day of deficits might be over.

Effects of TVA Competition on Security Prices

EXTENSION of TVA electricity to Florence, Alabama, and the general uncertainties regarding the new contracts for TVA power to become effective ninety days after completion of the Norris dam power house, are factors tending to depress security issues of companies most affected by TVA competition. Tennessee Electric Power (Commonwealth System) refunding 6s of 1947, for example, are currently quoted on a 6 per cent basis, while similarly rated utility issues are quoted at yields of about 4.32 per cent to 5.13 per cent, according to the Fitch bond record. Tennessee Public Service (National Power & Light system) refunding 5s of 1970 are on a 6.22 per cent basis, while other BBB bonds yield about 5.14 per cent to 6.06 per cent.

Alabama Power Co. bonds are also out of line with similarly rated issues.

What Others Think

American Utilities Coöperate with the World Power Conference

ALMOST every time there is an important international conference, somebody revives the ancient chestnut to the effect that international conferences usually save a number of complications—for the next international conference. Justified as this cynical observation may seem concerning armament, peace, or trade conferences, it is hardly pertinent concerning a purely factual, technical, and advisory meeting such as the Third World Power Conference, to be held in Washington, D. C., September 7 to 12, 1936 (inclusive).

Nevertheless, there is some misunderstanding about the forthcoming meeting being a purely governmental affair. Consequently it is desirable that the address made by Chairman Floyd L. Carlisle of the Consolidated Edison Company of New York before the recent convention of the Edison Electric Institute at St. Louis should be given wide publicity to the end that all members of the privately owned electric industry will know that the World Power Conference is being held with the active coöperation of important leaders of the privately owned electric industry in the United States.

Mr. Carlisle explained the purpose of the meeting as follows:

The conference program will consist largely of discussions of papers which have been prepared and circulated in advance of the meetings. Tours both before and after the conference have been arranged to the places in the Eastern United States which our visitors will desire to see. During these tours there will be round table discussions of the technical subjects. Probably these trips will be the most valuable to the foreigners of any phase of their visit here.

IN other words, the primary object of the conference is to exchange infor-

mation upon all aspects of power and fuels with particular regard to the latest developments. It is fitting, indeed, said Mr. Carlisle, that the Third World Power Conference should be held in the United States since it was in this country, under the leadership and management of the very members of the Institute that the world's greatest developments and utilization of power have occurred. Almost half of the world's production of electricity is consumed in the United States and about 95 per cent of such electric business in the United States is done by privately owned companies, most of which are members of the Edison Electric Institute.

Exploding the rumor that the conference was arranged for political purposes, Mr. Carlisle continued:

This is the first World Power Conference to be held in the United States. The invitation to hold this conference here was issued in 1930. While the Second World Power Conference was in progress in Berlin, the then President of our predecessor association, over an international hook-up which included Germany, England, and the United States, invited the conference to hold its next sessions in this country. It certainly was not staged to coincide with a national election campaign. It will be most unfortunate if it assumes anything of a political character. The government people active in the conference give us every assurance that such will not be the case.

AFTER all, the best proof of confidence is money investment and the fact that the Edison Electric Institute has contributed an amount equal to that appropriated by the United States government—\$75,000, for the expense of the conference and study tours—is the best evidence that private industry is coöperating. The electrical manufacturers have also contributed—\$25,000. From

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letters received from foreign countries, it appears that there will be from five to eight hundred delegates from Europe, South America, and the Orient. Thus it was with obvious sincerity that Mr. Carlisle concluded with a cordial invitation to all members of the Edison Electric Institute to attend the conference sessions:

I strongly urge your attendance and active participation in the meeting, the discussions, and the conferences. Many of us who have visited in foreign countries have been extended the same kind of courtesies and exchange of information which we propose to extend to our visitors. Let us make their stay in this country informative and useful. Let us absorb from them all of the valuable information possible.

As a supplement to the conference, plans have been announced for nine separate technical study tours for visiting foreign engineers, scientists, and industrialists, in company with a group of Americans to be held before and after the conference sessions in Washington. The release of this information by the conference committee states:

The tours will take the visitors—who will come from Europe, Asia, Africa, and South America—to view the wonders of this country: The great utilities of New York, the General Electric and Westinghouse factories, Pittsburgh's steel mills, Niagara Falls, Detroit's automobile factories, the great dams of the West, Coulee, Bonneville, and Boulder, the San Francisco bridges, Tennessee valley, etc.

In Washington, discussion will be devoted primarily to the economic problems involved in the conservation of power resources and the production and distribution of power. The tours will round out the conference on the technical side.

Tours have been planned under the sponsorship of the engineering societies of the United States and the trade associations of industries concerned with power.

Details of the proposed tours are as follows:

Tours have been arranged on these five general subjects: Tour I, Mineral Sources of Energy, including parties on coal, oil, gas, and internal combustion engines; Tour II, Hydraulic Sources of Energy, including parties on dams, Hydro plants and hydraulic research, TVA, and the larger implications of hydroelectric development; Tour III, Metropolitan Areas, Utilities and

Research, including parties on steam power plants, electrical equipment, engineering education and research, and business management of utilities; Tour IV, Railroad Transport; Tour V, Major Construction Projects.

The tours will include many points throughout the nation. Tour I will touch New York, Detroit, Cleveland, Pittsburgh, Niagara, and Philadelphia. Tour II: New York, Boston, Niagara, Pittsburgh, Zanesville, TVA area, Montreal, and Ottawa. Tours III and IV: New York, Schenectady, Chicago, Pittsburgh, Niagara, and Philadelphia. Tour V: New York, Montreal, Ottawa, Niagara, Chicago, Fort Peck, Grand Coulee, Seattle, Portland, San Francisco, Los Angeles, Boulder dam, and the TVA area. The release concludes:

The Third World Power Conference will be conducted as an international forum, where all sides of the questions growing up around public and private power policies can be presented to the entire world, on a basis of free and frank discussion, without personalities, politics, or propaganda.

ELABORATE models and pictures of great dams—Bonneville, Boulder, Norris, Connewingo, and others, experimental demonstrations, lighted maps, photographs, and other exhibits will be included. Four electrified farms will be on display near Washington—one sponsored by the Rural Electrification Administration and three by the Potomac Electric Power Company. Individual exhibitions are being planned by scientific and business institutions.

Finally, we are informed by the conference's American committee that compilation of a large scale inventory of the world's power resources has been begun by the Third World Power Conference. This work, when completed, will amount virtually to an encyclopædia of the world's power resources, of the experience of the nations of the world in their use and of plans for their conservation and utilization. Such a work has long been desired by statesmen, economists, engineers, and others. Surely a conference being conducted in such a con-

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structive spirit merits the attendance, or at least the active interest of officials of public utility properties in America whether they are publicly or privately owned.

—E. S. B.

THE WORLD POWER CONFERENCE. Address of Floyd L. Carlisle. Fourth Annual Convention of the Edison Electric Institute, St. Louis, Mo. June 3, 1936.

RELEASE No. 104. American National Committee, Third World Power Conference. Washington, D. C. July 13, 1936.

Does Government Service Dampen Individual Genius?

CONSIDERABLE fuss seems to have been stirred up by an article written by Thomas N. McCarter, former president of the Edison Electric Institute, and published in the June 4th issue of PUBLIC UTILITIES FORTNIGHTLY. As readers may recall, Mr. McCarter pointed out that government service, generally speaking, does not produce inventors, scientists, and technicians, comparable to those developed by private enterprise. More specifically, Mr. McCarter claimed that government can imitate but not originate and certainly could produce no such characters as Pasteur, Faraday, Watt, Edison, or Ford.

The monthly *News Letter*, organ of the public works engineers, took exception to this viewpoint as a "severe indictment of all government employees" and proceeded to cite names of numerous celebrities who distinguished themselves in government service, such as Walter Reed, the army surgeon who conquered yellow fever, William H. Park, New York city health expert who developed diphtheria immunization, and Hollerith, the Census Bureau employee who invented the tabulating machine which bears his name. *News Letter* stated in part:

The paved highway, the bascule bridge, weather forecasting methods, criminal identification techniques, intelligence testing procedures—all have been either invented or developed to the stage of practical use by government employees. Even in the field of arts and general culture the name of the government employee is not missing, for there can be cited those of Whitman, John Stuart Mill, Tschaiakowsky, and Rimsky-Korsakoff.

To this list *Public Management*, the

interesting monthly journal devoted to administration affairs of local governments, adds the two great army engineers, Goethals and Gorgas, who completed the Panama canal where private (French) enterprise had twice failed; John L. McAdams, the Scotch public surveyor who improved highway construction methods; James Espy, army weather forecast pioneer, Herman M. Biggs, New York city health expert in the field of tuberculosis prevention; Stephen M. Babcock, Wisconsin state dairy expert, and others who developed improvements in water purification and sewage disposal methods.

"THE luster of such individuals as Faraday and Pasteur will be undiminished," adds *Public Management*, "if we cite the achievements of only a few among many government employees who have altered the channel through which history courses." The editorial concluded:

But why go on? These random examples should serve to dispel the myth of government sterility. Private enterprise has no monopoly on contributions to progress. Scientific research is motivated by service equally as by profit. The mechanical inventions of the researcher are matched by the social inventions and discoveries of the administrator in government and industry alike. As we honor Edison and Ford, may we also honor Reed, Biggs, Goethals, Hollerith, and thousands of others who served the public well and made the lot of man a more endurable one.

If one were literally to construe Mr. McCarter's remark that "one looks in vain for the name of any government employee as the originator, inventor, or developer of any of the fundamental

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St. Louis Daily Globe-Democrat

TWO GOOD INDIANS

discoveries," one might fairly conclude that the generality may be too sweeping. However, taking a broader view, it might be reasonably argued without casting any aspersion upon the glorious memory of such names as Reed or Goethals, that really big, pioneer type of inventions have to be worked out, or at

least they have usually been worked out, by individuals who have managed to free themselves, temporarily at least, from outside interference whether by a political or a private superior.

Comparisons are odious but it does not "diminish the luster" of Reed, Park, or Biggs to observe that they were

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specializing and elaborating upon the basic principles of bacteriology and stereochemistry discovered by Pasteur, Koch, and Lord Lister. In short, Mr. McCarter's point, as this reviewer understands it, is that basic discoveries and inventions have generally come from individual researchers and it should not be difficult to understand why this has been so.

IN the first place, government service in capitalistic countries has generally not offered a field for scientific research. Confined for the most part to the business of administering purely governmental affairs as we know them (such as taxation, academic education, law enforcement, etc.) one would hardly expect public servants to emerge with plans for steam engines, light bulbs, or moving pictures. Within their own field, on the other hand, government employees have given a good account of their intelligence as shown by the achievements of Hollerith and Reed. They both had specific jobs to do and they used their brains to find a way of doing it best.

Again, it might reasonably be argued that pure genius does not thrive, or at least, does not do its best work under bureaucratic restriction. It is difficult, for example, to imagine Edison as a government employee being given such liberty that he could drive a crew of assistants to bake linen threads and other odd bits in an oven over 16,000 times in the hope of developing an incandescent carbon filament. He probably would have been fired for boondoggling. Edison needed freedom of action and thought to plan and develop the basis for the electric industry. He could never have accounted to a government comptroller for what he was about for the simple reason that he never knew himself exactly. Inspiration along such pioneering lines cannot be "planned" ahead.

ONE need only read Descour's life of Louis Pasteur and the account of his clashes with the petty government of his day (Napoleon III) to know that

Pasteur could not have been Pasteur without being his own boss. And one need only read John Stuart Mill, the India House examiner, to know what John Stuart Mill thought about governmental interference with private initiative. It might even be symbolic that Walt Whitman (put on the honor roll of government employees by *News Letter*) was fired by Secretary Harlan from his job as clerk in the Interior Department because he wrote "Leaves of Grass." It is to the credit of the former Imperial Russian Government that by virtue of the Czar's artistic liberality the incessantly composing Rimsky-Korsakoff was shifted to the faculty of the St. Petersburg Conservatory of Music instead of being sacked for not attending to his duties as a naval officer. That might well have happened to him in the American Navy. (And for that matter, as taxpayers, we might even prefer a more practical, if less versatile, American Navy to the Russian Navy that took such a licking from the Mikado some years back.)

In short, it seems to this reviewer possible to harmonize the viewpoints of both Mr. McCarter and his critics. *Public Management* is undoubtedly correct when it asserts that private enterprise has no monopoly on inventive intelligence. On the other hand, it must be admitted that government service as organized in capitalistic countries does not offer much inducement to those gifted individuals who have a special bent for activities which are not within the prevailing field of government. We have set up our government that way and so, presumably, we want it that way.

Of course, the deeper question of whether real epoch-marking genius can, in the long run, thrive under the regimentation of individuals practiced in a totalitarian state such as Russia, where the government is so organized as to go into all fields of endeavor, remains to be solved. Dorothy Thompson recently remarked that there was not one really able writer left in Germany today.

It is a highly debatable psychological question that cannot be dismissed light-

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ly. Human genius may well be an irrepressible modicum of divinity that will pop up more or less according to the law of averages, regardless of the forms of government or employment. On the other hand, it is hard to visualize Shakespeare in brass buttons. Our answer may come out of Russia or New

Germany. It may never come at all.
—F. X. W.

INVENTIONS AND GOVERNMENT EMPLOYEES.
Public Works Engineers' News Letter.
July, 1936.

THE MYTH OF GOVERNMENT STERILITY. Editorial Comment. *Public Management*. July, 1936.

Development, Organization, and Financing of the Electrical Industries in the United States

DEVELOPMENT, Organization, and Financing of the Electrical Industries in the United States of America" is the subject of a German thesis on which Heinrich Cahn, a Berlin engineer, received last May his degree as doctor of philosophy from the Friedrich Wilhelms University of Berlin. Taking into consideration that the author was not in a favorable position, writing from abroad and in a foreign language, it must be conceded that he has made a most thorough study of the subject. He has made a detailed investigation into the various fields of his theme by referring to American publications, and by making use of private and public reports such as the "Special Reports of the Central Electric Light and Power Stations" of the last three decades, published by the Washington Bureau of the Census, and the letters of the Utility Corporations issued by the chairman of the Federal Trade Commission, Washington, in 1930. In addition, he has searched the Press of the New York Edison Company: Forty Years of Edison Service 1882-1922, for suitable material. The reports of the National Electric Light Association formed another basis for Dr. Cahn's research work.

Unfortunately, subjects which deal with the economic aspects of the profession and which are not directly allied to the technical aspects of electrical engineering, such as rate making, project financing, depreciation, obsolescence, factory organization, etc., are not ac-

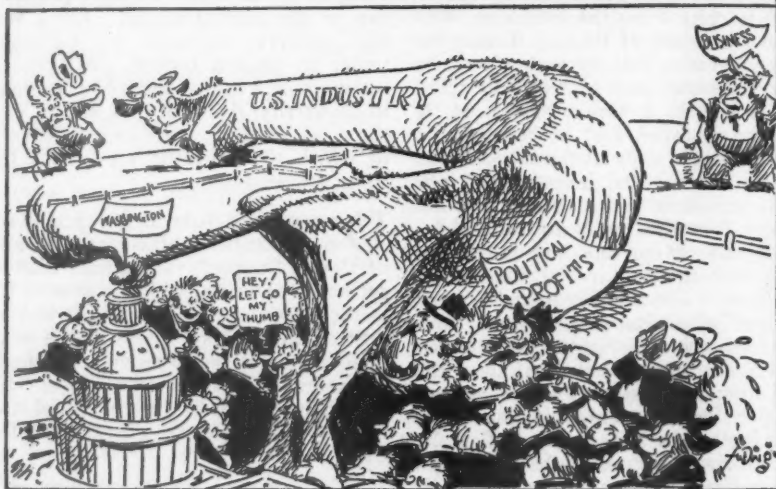
ceptable. Nevertheless, the material assembled and closely printed in Latin type on forty pages is worthy of consideration in this country from which it originates. As far as its purpose is concerned, it is of course of more practical use for the student abroad. For a foreign country, especially for Germany under its present régime, this treatise, maintaining a high standard of academic objectivity, does not lack in any way the good Teutonic qualities of efficiency to which the scientific world has become accustomed.

DIVIDED into four major parts, the first is entitled "Basis and History of Power Supply." It outlines historically the conditions which gradually led to the present status of the electrical industries in America, stressing the originally available resources for the supply of power: coal, water, oil, and gas. Introducing electricity for the social and industrial requirements of our time, Dr. Cahn observes:

The extent of the electrification of a country must be taken today as the standard of its general industrial development. The use of electric current affords the possibility to transmit with very small losses over very large distance the greatest quantities of power from the source where the output is the cheapest.

Section II, Organization and Power Supply, is subdivided in four chapters, dealing with private and public power plants, state control and interconnections, technical and business respectively. To this part, a special chapter "Or-

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The Arkansas Gazette

SPEAKING OF REDISTRIBUTION OF WEALTH

ganization and the Electric Industries in Case of War" is added. Dr. Cahn writes:

Especially important for a country is the regular functioning of the electrical power supply in case of war. In a plan for mobilization such regulations must to a certain extent be provided for as is the case in the United States. In accordance with customary American publicity such arrange-

ments are made publicly and are made known in the yearly reports of the Secretary of War as well as in the reports of private organizations which cooperate with the latter. The chief of the Engineering Corps of the American army keeps a record of the entire power supply together with the National Electric Light Association, now the Edison Electric Institute. Thus in case of war there already exists a sort of mobilization plan. Because of it, the "direc-

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tor of electric power," to be appointed in case of war by the President, shall have the possibility to act quickly and successfully. According to World War experience, the administration of the electric industry also lies during a war first of all in the hands of skilled, private economic organizations and as far as the government is concerned, control is only intended to effect an exchange of superfluity or shortage. The state administration of plants for compensation shall only take place when an effective continuation of warfare demands such procedure.

CHAPTER III., Financing of the Electric Power Supply, deals with loans, shares and stocks, partnerships, customer ownership system, and monetary matters. Here Dr. Cahn draws a parallel between the law in Germany and in the United States regarding shares. "For the judgment of American financing methods," he writes, "it is essential to know that in the United States there does not exist a general law regarding shares (the law regarding corporations is fundamentally a state law), and that the American principles for capitalization greatly differ from the German regulations. In Germany, the capitalization of an enterprise must not be greater than the actual investment, *i. e.*, the amount of the investments plus the cost value of the equipment (Sacheinlagen)."

In his last chapter (IV) the author deals with the possibilities for extension of the aims of our electrical industries. He holds that two major points will be responsible for the further development of the American electrical industries. He thinks that private in-

dustry will be deterred from creating new power plants and will instead concentrate to a greater extent on the extension of its networks, *i. e.*, the distribution of power and increased power consumption.

IN Dr. Cahn's opinion, the electrification of American industry has been practically completed and apartment houses to a great extent have also been connected with the distribution network. He holds, however, that here, through increased propaganda it should be possible to increase to a still greater extent the consumption of electric power. Agricultural electrification, too, according to the author, remains undeveloped. He explains that a great portion of the farms still work with private plants and that a further extension of the distribution net, which because of its cost can only be accomplished through state financing, will result in new agricultural consumers. Here also, it will be up to the electric utilities companies to increase power consumption through intense publicity, he says.

Finally, summarizing his viewpoint, Dr. Cahn comes to the conclusion that both the new and the old world are similarly handicapped on their road to modern industrialization. He states:

It would seem that in America there are the same difficulties as in the old European states in the transformation of a colonial into an industrial country, so far as the prerogative of the state is concerned, as it has been the case in England and Germany.

—DR. CURT L. HEYMANN.

Electrical Distribution Costs in Merry England

JUST about the time when our Federal administration has definitely decided that some of our holding corporations in America control too many electric utilities, the Committee on Electrical Distribution reporting for future legislation by the British Parliament has apparently decided that the opposite is true in England. That at least seems to

be the gist of the committee's report, which was recently published and which calls, in brief, for the merging of hundreds of small English electric companies into larger retail groups.

The committee confined its studies to electrical distribution because the major problems of generation and transmission were substantially (and presum-

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ably) settled by the establishment of the Central Electricity Board in 1926 which consolidated and controls the operations of generating stations, with the resulting development of the well-known "grid system" of high voltage lines.

Before the establishment of CEB, as the Central Electricity Board is called, there was wide confusion in the field of generation and transmission because of a lack of uniform standards of frequency and general duplication of local stand-by equipment. This situation has been cleared up pretty well by CEB, so that the retail cost of electricity has been cut in half within the last ten years. However, the price of electricity in England is still high and much of the blame is placed on the unsolved distribution problem which is still quite a mess.

PHILIP Wagner, London correspondent for *The Baltimore Sun*, digested the committee's report in part as follows:

Altogether there are 643 separate distribution undertakings on this small island, some publicly owned and some privately owned. Some of them distribute current to a few square miles only; others to many hundreds of square miles. In London and the district which surrounds it, for example, there are eighty-two separate organizations distributing electric current.

These 643 are highly individualistic, and pursue their separate policies. There are, for example, forty-eight different voltages at which current is supplied in England. This means that the householder may find, upon moving across the street, that his refrigerator and electric stove are fit only to blow out fuses with. It means, furthermore, that manufacturers may not concentrate on a standard voltage and are thus denied the economies of mass production. Thus the use of electricity is held back. England uses nowhere near so much electricity, proportionately, as the United States. Last year Soviet Russia generated and distributed almost as much as England did, and this year it will probably use more.

Electrical confusion in England is not confined merely to voltages. Prices for electricity vary fantastically from one region to another. There is no uniformity whatever in methods of billing.

The committee has found that of the 643 distributing concerns two thirds actually

supply less than 10 per cent of all the current.

In the United States, such companies as these were eliminated during the epidemic of mergers that developed (and in some cases overdeveloped) the vast holding company systems during the middle and late twenties. This voluntary amalgamation, as we know, was accomplished at considerable cost to security speculators, but we also know that technical progress was spurred tremendously. This did not happen in England because of various local obstacles, including charter restrictions and limited opportunities for large-scale financial promotion.

CONCERNING this comparison of financial as compared with technical sacrifices, Mr. Wagner's digest of the British committee's report concluded:

The recommendations of the committee, when they reach the political stage, will be opposed by two powerful groups. The Labor opposition, which is committed to public ownership, will object that the effect of them would be to centralize ownership and control in the hands of private capital. On the other hand, those who now control the small companies (many of which are highly profitable in spite of their inefficiency) may be expected to denounce the plan as one more effort of the radicals to undermine the institution of private property.

And so it would seem that the British Committee and our Federal administration agree on at least the means of developing the electric industry to the best public advantage—compulsory reorganization. The difference is that John Bull and Uncle Sam are meeting each other on the same ground but going in opposite directions. Uncle Sam would "by compulsion" break the industry into smaller pieces. John Bull may "by compulsion" melt the pieces into bigger lumps. Such is political omniscience.

—E. S. B.

DIGEST OF REPORT OF COMMITTEE ON ELECTRICITY DISTRIBUTION. By Philip Wagner. *The Baltimore Sun*. July 8, 1936.

The Latest Utility Rulings

Temporary Rate Procedure with Provision for Reimbursement Is Sustained

THE New York Court of Appeals, reversing a decision by the appellate division of the supreme court, upheld orders of the commission requiring a temporary reduction in rates pending final determination. The court interpreted the statute under which the commission had acted and sustained it as against a claim of unconstitutionality.

The law provides that the commission may fix a temporary rate sufficient to provide a return of not less than 5 per centum upon original cost less accrued depreciation of the physical property used and useful. There is some accuracy in these figures, said the court; they can be fixed with some certainty and are not dependent altogether upon speculative expert opinion. Other elements, of course, must be considered in a final determination of rates. The statute further provides that the commission in finally fixing rates may consider the effect of the rates fixed by temporary order.

This provision was construed by the court to mean that the commission in its final determination, if the temporary rate were proved to have been too low, might permit and authorize the utility to charge enough for its service to make

up the loss. As to the equity of this provision, Chief Judge Crane said:

True it is that all the consumers paying the final rate, including the take-up, may not be the same as those who paid the temporary rate. A few consumers may be new customers paying what the old consumer should have paid. Such instances are of minor importance; the percentage must be very small. We can never work our institutions of government if we refine matters to such an extent that we have to consider all these little details. The Constitution expresses fundamental principles, and if in the main these have been observed, this is all that can be required. Besides, when we speak of the consumer—the customer—we mean the public, not individuals.

Moreover, it was said that this was no concern of the company for its complaint was that because of the temporary rate it would suffer loss.

The court concluded that the statute was not unconstitutional, that it met defects in prior procedure, and that it afforded the company ample protection as well as the consumer. Judge Crane pointed out that if a temporary rate had to be based on all the elements to be considered in fixing a final rate, it would be impossible to fix a temporary rate. *Bronx Gas & Electric Co. v. Maltbie* (No. 331-A, 331-B).



Form of Street Lighting Charges

THE Wisconsin commission, in considering the rates of a municipal electric utility, said that it is apparent that a flat rate per kilowatt hour is not well adapted to street lighting service because the city could, by reducing the number of lamps or shortening the hours of burning, require only a nominal consumption which would not offer

the utility enough revenue to cover the fixed charges on its investment.

The commission concluded that the form of rate to be prescribed for street lighting service should be a 3-part rate consisting of (1) an investment charge, (2) a lamp renewal charge, and (3) an energy charge. *Re City of Oconomowoc* (2-U-897).

PUBLIC UTILITIES FORTNIGHTLY

Gas Rates for Space Heating

THE Massachusetts Department of Public Utilities approved a rate for gas available to any customer using automatic self-acting gas appliances for his major space-heating requirements and using gas for his other major fuel requirements.

Two commissioners dissented, holding that discrimination resulted. They expressed the opinion that there are users of gas for certain purposes other than house heating whose consumption is as continuous and uniform as that of house-heating customers.

The commissioners concurring in the majority opinion, although of the opinion that mere difference in use does not justify a different rate, said:

Where gas is used for space heating controlled by an automatic device, the use of the gas for that purpose is spread over more hours a day than its use is likely to be in other household uses. This results in a more continuous and uniform use, with less fluctuations, and has a tendency to level out the demand on the system during the twenty-four hours of the day. We think it obvious that a company can afford to sell gas at a lower rate where its use is more continuous and uniform than is usually the case. This more uniform and continuous use justifies, we think, the establishment of a classification of rates applicable to such use, provided the rate established is not so low as to throw a burden on customers served upon higher rates. Moreover, we think the rate proposed can be justified as a promotional rate under Chap. 365 of the Acts of 1934. The rate is conditioned upon its use for space heating where such use is controlled by automatic self-acting devices and where the customer uses gas for his other major fuel requirements. Thus, to obtain the rate for the purposes of space heating the customer must use gas for his other major fuel requirements. This tends to increase the use of gas.

As to an objection that the rate did not apply to all who used gas under similar conditions and that the same continuous use obtained in gas refrigerators and in the use of gas-cooking stoves where automatic devices are attached, it was said that theoretically there may be some

force in the argument relating to gas refrigerators but "in the making of classifications of rates practical considerations must be taken into account."

The use of gas in a refrigerator was said to be so small that as a practical matter the owner of the refrigerator who did not use gas for space heating would not ordinarily use the required minimum amount of the rate, while if he used gas for his space-heating requirements, controlled by automatic self-acting devices, the rate would apply to the gas used in his gas refrigerator if he used gas for his major fuel requirements. The commission did not think the conditions applying were so similar as to require that the rate should apply to the use of gas in gas refrigerators. The commission also said:

As to the automatic devices applying to cooking stoves we do not think the comparison is sound, as the devices really only regulate the heat of the oven while cooking is being done and the length of the time the gas is used during the twenty-four hours of the day is not comparable with that of space heating.

It was shown that no gas would be sold at less than 50 cents a thousand cubic feet, that the cost of the gas to the company in its holder was approximately 30 cents per thousand, and that a spread of 20 cents per thousand would be left for the distribution, meter reading, billing, collecting of accounts, and other expenses attached to the promotion of the sale of gas sold under the classification. The evidence, it was said, as to whether this spread would cover these costs was somewhat unsatisfactory, but the department was of the opinion that it ought not to disapprove the rate unless it appeared clearly that the sale of gas under the rate would throw a burden upon other customers to whom the rate did not apply. This had not been shown by objectors to the satisfaction of the department. *Re Boston Consolidated Gas Co. (D. P. U. 4885).*

THE LATEST UTILITY RULINGS

Power to Regulate Municipal Plant Rates beyond Municipal Limits

THE Washington Department of Public Service, according to a decision by the supreme court of Washington, has no jurisdiction to regulate water rates for service furnished by a municipally owned and operated utility beyond the corporate limits of the municipality.

The Washington legislature in 1911 enacted a public service regulatory law which excluded from the authority of the commission power to fix rates for a water system owned by a city or town. In 1917 the legislature authorized cities to extend their water systems so as to serve users outside of corporate limits. Provision was made for regulation of such service and the rates therefor by the commission.

Later, however, in 1933 a law was enacted providing that when any city or town in the state owns and operates any municipal waterworks system, and de-

sires to extend beyond its corporate limits, it shall be lawful for the city to acquire, construct, and maintain the necessary system. Provision was made at that time that any such city or town should have the power to enter into a contract for furnishing water, "fixing the terms upon which such outside distribution systems will be installed and the rates at which and manner in which payment shall be made for the service rendered."

The court, although recognizing the rule that repeals by implication are not favored, held that there was an irreconcilable conflict between the 1933 law and the earlier law, and, therefore, the city rather than the commission had power to fix the prices of service outside of the city. *State ex rel. West Side Improvement Club v. Department of Public Service of Washington et al.* (58 P. (2d) 350).



New York Telephone Rate Reduction

THE New York commission, in ordering gross reductions of approximately \$4,000,000 for the New York Telephone Company, did not reduce station rates since a reduction in such rates, to be of substantial benefit, would have such a large revenue effect as to bring about an amount of decrease in the net revenues which seemed justified. A reduction of but 25 cents per month in station rates alone would absorb all of the possible reduction.

The advantage of the reduction was applied to rates and charges for miscellaneous services and facilities and against toll rates for relatively short distances.

The commission found that there was sufficient evidence in the record to warrant an order making an immediate reduction although a complete investigation had not been made. It was thought doubtful whether the conclusion which might be reached after a final and com-

plete determination would vary materially from that which could be made upon the evidence before the commission, and on this point Commissioner Brewster said:

Bearing in mind the cost of valuation work done by other utilities in the state of New York, a reasonable estimate of the total cost of this rate investigation would be upwards of one million dollars. The cost of the proceeding, while presently being paid by the company, must ultimately be borne, in part at least, by subscribers. I believe that the savings which can be effected by the termination of the proceeding might better be applied to the benefit of subscribers through an immediate reduction in rates.

In connection with the question of depreciation the commission expressed the view that as a result of the depression it is probable that as a general rule property will remain in service longer, and with this lengthening of the service life of property a longer period results in which to provide for retirement loss.

PUBLIC UTILITIES FORTNIGHTLY

Commissioner Brewster declared that the depreciation reserve was excessive and stated further:

Obviously, it is inequitable to require the subscribers to pay over the entire life of the property more than the actual loss sustained when the property is retired. This being so, the proper basis upon which to

fix an annual rate of depreciation is to make it such that over the remaining life of the property a sufficient additional amount will be accumulated so that the reserve at the time of retirement will equal the loss sustained at that time.

Re New York Telephone Co. (Case No. 8230).



Street Railway Abandoning Service Must Remove Property from Highway

AUTHORITY to discontinue service by a street railway was conditioned by the Pennsylvania commission upon the filing by the company of security for the proper and safe maintenance of its structures until removed, and for the removal of tracks, poles, wires, and other facilities, and restoration and repaving of the highway.

The commission based its decision upon an opinion by the state attorney general to the effect that it is the duty

of the commission to refuse to grant permission to a street railway company to abandon its service unless it removes all of its tracks, poles, wires, and other facilities from the improved portion of the highway and restores and repaves that portion previously occupied by its tracks and such other facilities so as to conform with the remaining surface of the roadway. *Re Shamokin & Mount Carmel Transit Co. (Application Docket No. 34569).*



Water Service under Arrangement between Mutual Companies and Individual Not Public Service

THE Oregon commissioner, after investigating the service rendered by a water company and an individual leasing the property to the company and operating it as agent, held that neither the company nor the individual had assumed the status of a public utility.

A man named Maclay leased the water system to a corporation and, under contract, agreed to furnish water as agent of the corporation exclusively to corporate stockholders. He also entered into certain agreements with nonstockholders under which he furnished water to them as "lessees." The commission, in holding that the water company itself was not a public utility, said:

The water company does not "own" the plant or equipment by which it is furnishing the water to its stockholders; it does not "operate" the plant or equipment for, under the terms of the existing contract with Maclay, the corporation leases the plant and equipment from Maclay, but in the same

instrument designates Maclay as the operator thereof free from any "control" by the corporation whatsoever. Clearly the water company is not a public utility, for it has effectually contracted itself out of any semblance of such status. . . . Where a corporation contracts to lease a water system and restricts the use of such system to its stockholders, and refrains from serving any other persons, it is not engaged in serving the public—it is merely serving itself.

The commission, in holding that Maclay was not a public utility, pointed out that by the terms of the lease he devoted all of his facilities to the demand of one particular customer, namely, the corporation. The commission continued:

When one devotes his property to the service of one customer under a particular contract, he cannot be said to be serving "the public." It is true that there are forty-three stockholders being served, but the lease contract from which we must test the status of Mr. Maclay is between himself, on the one hand, and the single legal entity—

THE LATEST UTILITY RULINGS

the corporation, on the other hand. It is true that the corporation, in the same instrument, appoints Maclay as its agent to distribute the water to its stockholders, and fixes the compensation, but the Maclay who distributes the water to the stockholders is not the same Maclay who leased the water system to the corporation—in one case he is "employed" by the corporation, and in the other he is its landlord.

In regard to the service furnished by Maclay to the "lessees" it was said that he had not devoted his property to the use of the public since it was not his property to sell as he had already, by the terms of the contract, sold it to the corporation. *Re Columbia City Water Co. (U-F-719).*



Coal Company Generating Electricity Not a Public Utility

THE supreme court of Colorado reversed a former holding that the Moffat Coal Company was a public utility and held that, after taking cognizance of an amended charter obtained by the coal company expressly authorizing it to generate and sell electricity without becoming a public utility, it did not attain the public utility status.

The decision was on a rehearing of an appeal in a suit originally brought by the Colorado Utilities Corporation in

the Denver district court against the state public utilities commission to compel classification of the Moffat Coal Company as a public utility. The Colorado Utilities Corporation had operated an electric distribution system in Oak Creek until 1932, when the town voted to install its own electrical distribution system and buy electric current from the coal company. *Colorado Utilities Corp. v. Colorado Public Utilities Commission.*



Public Convenience and Necessity Need Not Be Shown by Interstate Motor Carrier

THE Utah commission, in overruling objections by competing carriers to the authorization of an interstate motor carrier to use highways of the state, declared that the commission does not assume to regulate interstate commerce, but that the right to regulate such commerce by motor vehicles belongs to the Federal government and is exercised by the Interstate Commerce Commission under the Federal Motor Carrier Act of 1935. The commission, in interpreting the state law governing

licenses for interstate operators, said:

As the commission interprets the legislative intent of this section, the question of public convenience and necessity is one which may not be considered in determining if an application should be granted. The commission interprets this section to mean merely that a carrier desiring to use the highways of this state in interstate commerce shall first comply with the police regulations of this state, including tax and license laws, as they apply to motor carriers operating in interstate commerce.

Re Inland Pacific Stages (Case No. 1804).



Commission Does Not Have Exclusive Jurisdiction over Rate Controversy

WHERE a matter is one of purely private concern between a public utility and one of its patrons the courts have jurisdiction to determine such controversy. Such is the ruling of the

supreme court of Oklahoma in a case where a customer attempted to recover charges alleged to have been improperly collected by a gas utility.

The customer operated a cleaning and

PUBLIC UTILITIES FORTNIGHTLY

pressing plant and for some time had received gas at domestic rates rather than industrial rates. The company defended with the claim that the service had been performed under rates fixed by the corporation commission; that pressing and cleaning establishments had not been classified as industrial enterprises and had not been served at industrial rates; that the court was without jurisdiction because of the exclusive jurisdiction of the commission both to interpret its orders and to determine the rates which the customer was entitled to pay; and that the commission had not established any other or different rates than those under which the company had proceeded.

The court held that it had jurisdiction, stating:

The corporation commission had established the rates to be charged for domestic and industrial services by the defendant. This is conceded by all the parties. The difference between the parties was whether plaintiffs were domestic or industrial consumers. This was not a matter of public concern, but purely a matter of dispute between the plaintiffs and the defendant which involved them alone, it being possible that in one instance a cleaning and pressing plant might employ gas solely for heating and other domestic purposes whereas another plant of the same general nature across the street might employ gas for wholly industrial purposes.

Recovery was denied to the customer, however, on the ground that the money had been voluntarily paid with full knowledge of facts under which it was demanded. *Central States Power & Light Corp. v. Thompson et al.* 58 P. (2d) 868.



Other Important Rulings

THE appellate division of the New York supreme court sustained the holding of the lower court that a writ of prohibition could not be issued against the commission to restrain the fixing of rates for hydrant service where the commission had already made its determination (mentioned in PUBLIC UTILITIES FORTNIGHTLY, July 2, 1936, at p. 55). The court declared that a writ of prohibition is not issued for the correction of errors but only to prevent usurpation of jurisdiction, or the exercise of power in an illegal manner or beyond the jurisdiction conferred. *City of New York v. Maltbie et al.* (N. Y. App. Div.).

The term "pool car" as used in a city carrier rate proceeding was held by the California commission not to include shipments of concerns engaged in the consolidation and forwarding of property as a business, such shipments being designated as forwarder's cars. The commission defined the term "pool car"

as a phrase to describe a car load or quantity shipment that contains property forwarded by one or more shippers consigned to a carrier or to the shipper's representative in care of the carrier for distribution to two or more sub-consignees. *Re Rates, Rules, Classifications, and Regulations for Transportation of Property* (Decision No. 28731, Case No. 4084).

The Virginia commission, although it authorized an extension of the application of emergency freight rate increases intrastate in order to harmonize intrastate and interstate rate structures with the exception of commodities previously exempted from emergency increases, declared that the addition of surcharges to rates which have heretofore been prescribed or established as maximum reasonable does not as a matter of sound economic principle meet with the approval of the commission. *Re Emergency Increases in Rates and Charges* (Case No. 5999).

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

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Public Utilities Reports

COMPRISING THE DECISIONS, ORDERS, AND
RECOMMENDATIONS OF COURTS AND COMMISSIONS



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MISSOURI PUBLIC SERVICE COMMISSION

Public Service Commission of Missouri

v.

St. Joseph Railway, Light, Heat
& Power Company

[Case No. 7630.]

Valuation, § 266 — Weight of evidence — Land value.

1. A valuation of various parcels of land by a real estate board was given greater weight than an appraisal by a real estate dealer employed by a public utility company, where the board appraisal was made by three members and the names were submitted to and approved by the city and the company, p. 119.

Valuation, § 202 — Unused property — Right of way — Parks.

2. A right of way for a street car line and park property acquired by a public utility company in good faith, the expenditure being a prudent investment and the earnings in the past having been included with revenues from street railway operations, should nevertheless be excluded from the rate base when no longer used in public service, p. 119.

Valuation, § 238 — Property not owned.

3. A substation now owned by a public utility company should not be included in the rate base as property used and useful in public service, p. 122.

Valuation, § 80 — Reproduction cost — Unit costs — Pricing inventory.

4. A reproduction cost estimate based upon an itemized pricing of inventory was held to be more reliable than an appraisal based on an average pricing of major items derived from construction records in the files of appraisal engineers, p. 123.

Valuation, § 413 — Weight of evidence — Manufacturer's quotations — Installation cost.

5. An erection cost submitted by a manufacturer and included as part of the cost of equipment in place is a reliable estimate and should be given more weight than a public utility company's estimate for erection based on the weight of the equipment, p. 124.

Valuation, § 183 — Charges to capital — Repaving streets — Abandoned tracks — Bus substitution.

6. The cost of repaving streets in which tracks have been abandoned but over which busses are now being operated should not be included in the rate base, where the streets were repaved either because of franchise requirements or by agreement with the municipality when the city's acquiescence in the abandonment of track was requested and where the company does not have any proprietary right in the new pavement, p. 125.

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Depreciation, § 42 — Charges to reserve — Repaving costs — Abandoned street car tracks.

7. The amount expended for new paving upon abandonment of street car tracks and substitution of busses for street cars should be charged to the depreciation reserve along with the estimated cost of the abandoned track; and if accumulations in the reserve are insufficient to cover the property to be abandoned, that part for which no reserve had been accumulated is a loss to be borne by the investor, although substitution of a new service for an old one with a resulting saving in operating expenses that is reflected in lower rates or improved service would justify the amortization of the cost of the property abandoned prior to the lapse of its entire life, p. 125.

Valuation, § 205 — Property used or useful — Rails used as return circuit.

8. Street car track with its high cost should not be included in property used in public service when its only service is that of a return for the electric circuit from a park, p. 125.

Valuation, § 224 — Stokers partially installed — Possible future use.

9. Stokers not completely installed and which could not be used at the time of appraisal should not be included in the rate base on the theory that they may become necessarily useful at some future date if the price of oil or gas rises considerably and it becomes more economical to use coal in electric generation, p. 126.

Valuation, § 231 — Property used or useful — Merchandising equipment.

10. Equipment assigned to the merchandising department of a public utility should be excluded from property used and useful in public service although it is contended that the expenditure for such equipment would still be necessary to stimulate new business if the nonutility activity disappeared, p. 126.

Valuation, § 132 — Overheads — Omissions and contingencies.

11. An allowance of 2.614 per cent of the cost of reproduction of public utility properties, exclusive of lands owned in fee, was allowed in the valuation of electric, street railway, steam heating, and motor bus properties, p. 126.

Valuation, § 192 — Property being sold — Street lighting system — Instalment payments.

12. A street lighting system constructed under provisions of a contract with a city requiring the city to pay an annual rental for twenty years, with the option to purchase at any time, should be excluded from the rate base of an electric utility and the cost included in a suspense account against which annual payments should be credited, since, as a practical matter, the city is buying the system on a deferred payment plan and the property will pass out of the rate base when the twenty payments have been completed, or at an earlier date when the city exercises its option, p. 127.

Valuation, § 135 — Overheads — Engineering and superintendence.

13. Allowances were made for engineering and superintendence amounting to 5 per cent on electric property, 4.5 per cent on railway property, 2.5 per cent on steam heat property, and 2 per cent on bus property, based on all items except land and general equipment, p. 128.

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Valuation, § 143 — Overheads — Preliminary organization, legal and administrative, and miscellaneous expenditures.

14. An allowance of 2.5 per cent was made for preliminary organization, legal and administrative, and miscellaneous expenditures of combined utilities, p. 129.

Valuation, § 124 — Overheads — Basis.

15. An allowance for preliminary organization, legal, and administrative expenses and for miscellaneous expenditures should not be applied to items of land, engineering and superintendence, and omissions and contingencies, p. 129.

Valuation, § 150 — Overheads — Taxes during construction.

16. An allowance of .75 per cent on all physical property was held to be adequate to cover the item of taxes during construction of a public utility property, p. 129.

Valuation, § 125 — Overheads — Basis — Taxes during construction.

17. Taxes during construction should be included on land as well as on structural items of property, p. 129.

Valuation, § 140 — Interest during construction.

18. Interest during construction was allowed at 6 per cent on the assumption that money would be obtained uniformly over the construction period and that the construction period would be approximately one and one half years for electric property, one year for steam heat and railway properties, respectively, and six months for bus property, with a resulting allowance of 4.5 per cent for electric property, 3 per cent for steam heat and railway properties, respectively, and 1.5 per cent for bus property, p. 130.

Valuation, § 124 — Overheads — Basis — Interest during construction.

19. Interest during construction should be charged on engineering and preliminary expenses as well as on materials and labor during construction, p. 130.

Valuation, § 92 — Accrued depreciation — Items depreciable — Installation cost.

20. The cost of installing transformers and meters should be depreciated to the same extent that the meters and transformers are depreciated in arriving at fair value, p. 131.

Valuation, § 96 — Accrued depreciation — Obsolescence of street cars — Comparison with other cars.

21. Accrued obsolescence in street cars is not properly determined by comparing the cars with a smaller car of a different type designed to be used for different service than that for which the cars involved are used, basing the comparison on the cost per passenger seat, p. 131.

Valuation, § 93 — Accrued depreciation — Items depreciable — Overheads.

22. Accrued depreciation should be deducted on all general overheads except preliminary organization, legal, and administrative expenses which are incurred only at the inception of the project and are not retired when the physical elements of the property are retired, p. 132.

Valuation, § 114 — Cost of financing.

23. Cost of financing should not be included as part of the rate base, p. 133.

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Valuation, § 332 — Going value — Separate allowance.

24. No separate determination should be made of the intangible element going value when in the determination of fair value of various properties the Commission has considered them as operating facilities, the entire utility being considered as a going concern and proper allowance being made for this element of value, p. 134.

Valuation, § 21 — Measures of value — Rate base.

25. Fair value was determined after consideration of fair market value of land, estimated investment, cost of reproduction, and cost of reproduction less depreciation of the facilities used and useful in rendering utility service, proper allowances being made for general overheads, cash working capital, materials and supplies, and all intangible elements of value inherent in the properties, p. 135.

Depreciation, § 51 — Electric utility.

26. An allowance of 3 per cent was held proper for the annual depreciation requirement of an electric utility department, p. 136.

Expenses, § 35 — Amortization of abandoned property.

27. No allowance was made for amortization of the unexpired life of abandoned street car lines where at the time of abandonment there was no request for amortization and the municipality did not indicate that it would acquiesce in such amortization; but amortization was allowed in the case of lines abandoned under circumstances indicating acquiescence by the municipality in such amortization as an operating charge to combined utilities, p. 137.

Expenses, § 84 — Payment to affiliated company — Evidence to support.

28. The amount of a management fee constituting a percentage of gross revenues paid to an affiliated company should be eliminated from operating expenses when no evidence is introduced whereby the Commission can determine that the administration expenses are just and proper, p. 139.

Expenses, § 105 — Employees' bonus — Benefit payments — Subscription plan.

29. Bonuses paid by a public utility company to employees who have purchased securities of an affiliated company on the instalment basis, have remained in service for five years, and have not disposed of their securities, should not be allowed as an operating expense since they are contingent upon purchase of securities of the affiliate and not upon the length of service or the efficiency of an employee, p. 140.

Expenses, § 46 — Contributions.

30. Contributions and donations by a public utility company are not allowable as an operating expense, p. 141.

Expenses, § 48 — Dues.

31. The cost of memberships in community and civil organizations made for the purpose of bringing good will to a public utility company and strengthening its position in a community is not allowable as an operating expense, p. 141.

Expenses, § 92 — Rate case expense — Amortization.

32. Allowable rate case expenses were amortized over a 10-year period, p. 141.

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Apportionment, § 15 — General expenses.

33. Rate case expenses and general expenses of a public utility company should not be apportioned to various departments on the basis of gross revenues instead of located expenses, p. 142.

Apportionment, § 15 — New business expense — Merchandising operations.

34. Apportionment between new business and merchandise operations should not be accepted when made on an arbitrary basis or when based on the theory that if the utility ceased selling merchandise the expenses would still exist and would be borne by the electric department, p. 143.

Depreciation, § 37 — Reserve — Unauthorized transfers to surplus.

35. Transfers should not be made from depreciation reserve fund to surplus, or to an account entitled "special surplus reserve," without permission of the Commission, and a company which has made such transfers should make proper entries to transfer such sum to the depreciation reserve, p. 143.

Return, § 83 — Combined utilities.

36. A return of 6½ per cent was held to be reasonable for a public utility company operating electric, steam heating, street railway, and motor bus departments, p. 144.

Return, § 71 — Reasonableness as a whole — Electric and railway department.

37. Consumers of electricity should not be compelled to pay electric rates sufficient to pay a return on street railway property as well as electric property, p. 144.

Rates, § 159 — Effect on patronage.

38. No increase in street railway fares was deemed advisable although the street railway department was not earning its depreciation requirement, as an increase would tend to decrease the number of street car riders, p. 146.

Return, § 16 — Right to earn.

39. No downward adjustment in steam heating rates is justified when revenues from steam heating consumers are not sufficient to yield a fair return on the fair value of the property used and useful in that department, p. 147.

Rates, § 296 — Service charge.

Criticism of the service charge, because of its psychological effect upon consumers, and suggestion that minimum charge be substituted for service charge, p. 146.

[May 18, 1936.]

I NVESTIGATION of present fair value and proper operating charges of an electric street railway, motor bus, and heating utility company; electric rates reduced.

By the COMMISSION: This proceeding was instituted by the Commission by its order issued May 26, 1931, directing its engineering department to make an inventory and appraisal of the property of the St.

MISSOURI PUBLIC SERVICE COMMISSION

Joseph Railway, Light, Heat and Power Company, and directing its accounting department to make an audit of the company's books and records for the purpose of furnishing information necessary to determine the present fair value of the company's property and the proper operating charges for use in future rate and security issue proceedings before this Commission.

The Commission's engineering staff commenced the inventory of the property in September, 1931, and filed the completed appraisal report on February 1, 1933. The date of the inventory is April 1, 1932. The audit of accounts for the year ended March 31, 1932, was filed by the accounting department on December 30, 1932.

The Commission notified all interested parties that the case was set for hearing at its office in Jefferson City on March 6, 1933. After three continuances, hearings were held during 1933 before three members of the Commission on June 26th to 30th, inclusive, and before one member on July 20th, 21st, and 24th to 28th, inclusive. A portion of the evidence introduced by witness F. C. Hamilton in Case No. 5550 (13 P.U.R.(N.S.) 478) involving the valuation of the Empire District Electric Company was, by agreement of all parties in this proceeding, transcribed as a part of the record in this case and deemed to be the testimony of Mr. Hamilton in this present record. The case was submitted on the record. Brief was filed by the company on June 4, 1934, and by the city of St. Joseph on September 17, 1934.

The St. Joseph Railway, Light, Heat and Power Company, hereinafter

designated "Company," is a Missouri corporation, with principal offices in St. Joseph, Missouri. The Company is controlled directly by the Cities Service Power & Light Company, of 60 Wall street, New York, and indirectly by the Cities Service Company, also of 60 Wall street, New York. It is one of the so-called Cities Service group of properties. The Cities Service Power & Light Company, a Delaware corporation, is a holding company owning the controlling interest in the common stock of the St. Joseph Company, and is a subsidiary of the Cities Service Company, in which is vested ownership of the securities of the electric light and power properties which are controlled by Cities Service Company.

The properties of the Company consist of the following:

Electric property.

The electrical distribution systems in the following cities, towns and villages in Missouri: [List omitted.]

The Company has a purchase agreement for 3,000 kilowatts of primary power with its affiliate, the Buchanan County Power Transmission Company, hereinafter designated "Buchanan Company." The Buchanan Company purchases this power from the Kansas Power & Light Company at a point about two miles east of East Atchison, Missouri, and transmits it over a transmission line to St. Joseph. The Buchanan Company, subsequent to the hearing of this case, was consolidated with the St. Joseph Company. The Company also has an agreement with Armour & Company and Swift & Company whereby the power plants in St. Joseph owned by the latter companies are maintained in operating

condition by the owners so that, upon notice from the Company, the requirements of Armour & Company and Swift & Company, now carried by the Company, may be carried by the privately owned plants for a maximum period of thirty days. The Company pays a monthly rental charge to the owners of the plants for this privilege.

City and interurban railway property.

The Company owns and operates the electric railway system in the city of St. Joseph, and an interurban railway system extending from St. Joseph to Savannah. Electricity for the street and interurban railway systems is supplied by the electric department of the Company.

Bus property.

The Company also owns the motor bus system in St. Joseph, and operates this in conjunction with its street railway system.

Steam heat property.

The Company sells steam for heating purposes in the business section of St. Joseph, obtaining this steam from its electric power plant.

The Company also operates a merchandising department for the sale and distribution of electrical appliances and kindred merchandise in St. Joseph and in the other communities served.

The appraisal submitted by the Commission's engineers, designated Exhibit 1, shows the estimated investment, cost of reproduction, and cost of reproduction less depreciation of the property inventoried on April 1, 1932. The Company's appraisal, designated Exhibit 34, shows the cost to reproduce the property as of July

1, 1933. The Company submitted a statement, designated Exhibit 53, showing additions and betterments from April 1, 1932, to June 30, 1933, inclusive.

The Commission's engineers also submitted an appraisal of the property of the Buchanan County Power Transmission Company, designated Exhibit 10, showing the cost of reproduction and cost of reproduction less depreciation of this property on April 1, 1932. Application was later filed (Case No. 8455, June 22, 1933) for permission to transfer the transmission property from the Buchanan County Power Transmission Company to the St. Joseph Railway, Light, Heat & Power Company. Permission for the transfer was granted on October 26, 1933.

I

Land and Easements

[1, 2] The various parcels of land owned by the Company were appraised for the Commission by a committee of the St. Joseph Real Estate Board. The names of the members of this committee were first submitted to the officials of the city of St. Joseph and the Company for approval, and were approved. The findings of this committee were then used by the Commission's engineers in their appraisal. This report of the real estate board is filed in this case as Exhibit 51.

The Company did not accept this appraisal, but employed Mr. J. D. Barrow, a real estate dealer in St. Joseph, to make a separate appraisal. His estimates of value are filed in this case as Exhibit 49. The Company in its appraisal used the values submit-

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ted by witness Barrow. The comparative values of land are shown in the following table: [Table omitted shows total of \$117,946.13 in Exhibit 51 and \$199,693.29 in Exhibit 49.]

Additional amounts were included in the appraisals of the Commission's and Company's engineers for expenditures during the original construction of the properties. These amounts are based on the book records of the Company showing the actual expenditures at the time of construction. The Company expended \$5,000 for permanent river work in connection with its power plant construction; \$1,585 to relocate telephone and telegraph lines between Francis street and the general office building of the Chicago, Burlington & Quincy Railroad; \$1,460 for repairs on the building north of the power plant substation; \$2,368 to secure the right to erect, maintain, and operate transmission lines; and \$2,089 for the right to install track and overhead lines on the Savannah Interurban Line at the time of original construction. The Company's appraisal included only the expenditure of \$5,000 for river work in connection with the power plant and \$4,420 for easements for the transmission system.

A study of Exhibits 49 and 51 shows that there is considerable difference in the valuations placed on a number of the sites owned by the Company. Thus, witness Barrow placed a value on Warehouse No. 1 of practically twice that placed by the real estate board. The widest difference is found in the valuation of the Lake Contrary park property.

The Company, in its brief, calls attention to inaccuracies in the land ap-

praisal included in the Commission's engineers' appraisal. Referring to the Lake Contrary property, counsel for the Company says, "To begin with, the Commission's engineers erroneously computed the area as 245.19 acres whereas it should have been 246.19 acres." Reference to Exhibit 49, submitted by Barrow, and to his testimony (R. p. 529) discloses an error in Barrow's calculations. The parcel is located in the north 24 chains of the SW quarter of section 36. A quarter section contains 160 acres and is 40 chains in length. A parcel 24 chains in length would have to contain 96 acres, though Barrow shows this to be 97 acres. Furthermore, the price of \$64,800 for the parcel, based on a Barrow calculation of \$1,000 an acre for 48 acres and \$350 an acre for the balance results in the balance being composed of 48 acres. The total is, therefore, 96 acres. Barrow's addition of all the parcels in the Lake Contrary property is 246.39 acres. Counsel for the Company corrects this to 246.19 acres. The correct area is 245.19 acres, as computed by the Commission's engineers.

Counsel then comments on the comparative valuations, and, in support of the higher value per acre, cites the testimony of Barrow on the location of the Lake Contrary property and the ultimate development of a terminal for river traffic in St. Joseph in this vicinity, concluding that "even though its use for that (amusement park) purpose is temporarily diminished, the real estate is valuable and at the present diminished market prices for real estate could be sold for a large sum of money."

The classification by the Commis-

sion's engineers of the Lake Contrary property as nonused is disputed by the Company on the grounds that the right of way for the street car line and the park property were acquired in good faith, the expenditure was a prudent investment, and the earnings were in the past included with the revenues from street railway operations. The Company contends, however, that if the Commission excludes this property from the rate base the loss that the Company would sustain if forced to dispose of the land at depressed prices should be amortized.

Strange it is, indeed, that this property is very valuable for general purposes if included in the rate base but of so low a value if excluded that the Company would sustain a loss because the Company would be forced to dispose of it at the present depressed prices. We are uncertain whether this so-called loss is the difference between the appraised price and sale price, or the difference between the cost price and sale price. Furthermore, there is no compulsion on the owners to dispose of this property at this time.

We are of the opinion that the valuation placed upon the various parcels of land by the real estate board should be given the greater weight because it was made by three members and the names were submitted to and approved by the city and the Company. We will, therefore, accept the estimates of the real estate board in our determination of the value of the land owned by the Company.

We are of the further opinion that the Lake Contrary right of way and park property should be excluded from the rate base because they are no longer used in public service. Under

utility regulation, the owner of property dedicated to public service is permitted to earn a fair return on the fair value of property used and useful in such service, but there neither is nor can there be any guaranty by the regulatory body that a fair return will be earned or that the public will continue to demand the service and thus insure continued use of the property. If the demand for the service decreases the loss is one of the hazards that any business may sustain and should be borne by the investor. The limitation to only a reasonable return even in boom times is the price that the investor in property dedicated to public service pays for the privilege of the legal monopoly that he enjoys.

Tabulating the amounts shown hereinbefore, and segregating them according to use by the various departments, we have the following: [Table omitted.]

Of the other amounts included in the appraisal by our engineers, we are of the opinion that only the expenditures for right of way for the electric and railway lines, amounting to \$2,368 and \$2,089, respectively, should be included with the land account. The other expenditures, namely, \$5,000 for permanent river work, \$1,585 for relocation of telephone and telegraph lines, and \$1,460 for repairs on building, should be included under Account 356 as extraordinary expenditures during construction.

II

Estimated Investment

The Commission's accountants made a study of the records of the Company to determine the amount in

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the fixed capital account representing the investment in fixed physical property on March 31, 1932. This was found to be \$15,186,296.21. This sum is composed of an unverifiable balance transferred from the Company's ledgers on January 1, 1903, and the recorded expenditures for properties purchased and for additions, betterments, and extensions since that date. A number of the items were, in the opinion of the Commission's accountants, improperly included. Other items were unverifiable. The Commission's accountants also added certain items to the fixed capital account, omitted by the Company, because they apportioned a larger amount of the general expenses to construction than was apportioned on the Company's books. The Company's book account is made up of the following totals: [Table omitted shows total of \$15,186,296.21.]

[3] The Commission's engineers made a study of the Company's construction records to determine the prudent investment in the properties under consideration. An analysis was made of all work orders, vouchers, and other records to determine the original cost of installing the various units, and a study was made of old invoices to determine the purchase price of practically all of the materials. Because of a lack of complete records, a few estimates of original performances and labor rates had to be made. These were based on information in the files of the Commission's engineering department rather than on Company's actual cost records. On page 4 of Exhibit 1, the Commission's engineers show, in the column headed "Estimated Investment," the sum of

14 P.U.R. (N.S.)

\$8,502,788 as representing all of the property. This includes allowances for cash working capital, materials and supplies, and land at market value prevailing on the date of the appraisal. Deducting the Commission's engineers' estimate of cash working capital and materials and supplies, and the amounts included for land and right of way, but including the extraordinary expenditures during construction, the prudent investment in the various properties was estimated by the Commission's engineers to be as follows:

<i>Property Used in Public Service</i> (Excluding Land and Working Capital)	
Electric property	\$4,452,344
Steam heat property	235,715
Railway property	2,818,531
Bus property	190,933
Total	\$7,697,523
<i>Property Not Used in Public Service</i> (Excluding Land)	
Electric property	\$93,385
Railway property	368,153
Total	\$461,538

The Commission's engineers erroneously included the Schreiber substation, which is not owned by the Company, with the property used and useful in public service. The prudent investment cost of this substation is \$3,090, and should be deducted from the estimate of \$4,452,344 for electric property.

The Company's engineers did not submit any estimate of the prudent investment cost of the properties.

The fixed capital accounts of the Company in this case are not sufficiently reliable to be used as a basis for determining the amount of money originally invested in the construction of the property. The adjusted balance of \$8,274,167.75, the original entry in

1903, was unverifiable by our accountants. Only the figure of \$6,416,952.12, representing actual expenditures for additions, betterments, and extensions, less retirements, for the period January 1, 1903, to March 31, 1932, is verifiable. The only reliable estimates of prudent investment before us are the figures submitted by our engineers. We shall, therefore, accept the totals enumerated above, less the deduction of \$3,090 for the Schreiber substation, as reflecting the prudent investment cost of the property, and shall so consider these figures in our determination of fair value.

Buchanan county power transmission property.

The Commission's engineers made no estimate of the investment cost of the Buchanan county property. This property was constructed very recently, and our accountants were able to determine the recorded construction cost. This is shown on the Buchanan county company's books, on March 31, 1932, to be \$275,417.55, and is inclusive of \$11,374.66 paid to Henry L. Doherty & Company as 5 per cent engineering fee, and \$35,830.08 as the charge of Henry L. Doherty & Company for "construction profit, securing contract, plus 10 per cent discount on notes." Our accountants were unable to verify the basis of the charges by Henry L. Doherty & Company for the cost of rendering the service covered by the charges.

III

Cost of Reproduction

[4] The Commission's engineers inventoried all the property as of April

1, 1932. Material prices and labor rates prevailing on or about the date of inventory were used in deriving the unit costs applicable to the inventory quantities. The appraisal submitted by the Company, based upon an inventory of the property as of July 1, 1933, with material prices and labor rates prevailing at that time, is not, however, the result of an itemized pricing of the inventory but is an approximation predicated on the judgment of the Company's engineers as to the value of the items. The statement of the additions to and retirements from investment from April 1, 1932, to June 30, 1933, inclusive, introduced by the Company during the hearing and designated as Exhibit No. 53, was submitted to permit the adjustment of the quantities in the Company's appraisal and the Commission's engineers' appraisal to the same inventory date. There was no evidence submitted that would permit the adjustment for differences in prices on the two dates of appraisal.

A further adjustment in the appraisals was necessary in order to make a comparison between them. The Commission's engineers' figures, exclusive of overheads, do not contain any allowances for omissions and contingencies in the unit costs whereas the appraisal submitted by the Company's engineers is based on the inclusion of the allowance for omissions and contingencies in the unit costs. It is, therefore, necessary to add the allowance of omissions and contingencies to the Commission's engineers' estimate in order to obtain figures comparable with those in the Company's appraisal. Since the Company's engineers made no segregation

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between property used and useful and property not used in public service, and between the street railway and bus property group, we shall combine the estimates made by the Commission's engineers to include the same items of property included in the estimate of the Company's engineers. The reproduction cost of the Schreiber substation, amounting to \$2,794, should also be deducted. The following table shows the comparative figures of the cost of reproduction of the property inventoried on April 1, 1932, exclusive of land and overheads but including allowances for omissions and contingencies: [Table omitted.]

The transportation property listed above includes the Savannah interurban line, which may be considered as a separately operated unit. We may find it desirable at this time, or at some future date, to separate the interurban property from the transportation property used in serving the city proper. We have, therefore, recapitulated the estimates of the reproduction cost of the facilities comprising the Savannah interurban line. The estimate of the Commission's engineers is \$441,837, and that of the Company's engineers is \$514,754. These are exclusive of general overheads, materials and supplies, and cash working capital.

A comparison of the two appraisals, exclusive of land and general overheads indicates that there is approximately a 6.7 per cent difference in the two appraisals of the electric property; approximately 7.5 per cent difference in the transportation property; and 5.0 per cent difference in the steam heat property. A part of this difference is no doubt attributable to

the higher price level prevailing in July, 1933, as compared to that in April, 1932. Considering the fact that the Company's appraisal was not based upon an itemized pricing of the inventory but rather on an average pricing of major items derived from construction records in the files of the Company's appraisal engineers, we feel that the Commission's engineers' estimates give us a more reliable basis for determining the cost of reproduction of the property, and we shall, therefore, base our findings on these estimates.

A few corrections submitted by the Commission's engineers on cross-examination should be made in order to adjust the Commission's engineers' figures. There should be an addition of \$4,165 on the pole account in the electric department and \$184 in the railway department, as shown in Commission's Exhibit No. 3, to change the pricing of the re-set poles on the property from secondhand prices to new prices. There should be included the cost of reproduction of an 11,000-gallon tank omitted in the Commission's engineers' appraisal. The record does not show the cost of reproduction of this tank. From information available in our engineering department's files, we find that the cost of reproduction of a tank of this type will approximate \$1,000, depending on the thickness of the tank shell, the necessary excavation, etc. The effect on the appraisal is, however, negligible.

[5] The Company also contended that the installation cost of equipment was, in a few cases, too low, and should be increased. The Commission's engineer testified, however, that in the particular cases mentioned

the cost of erection was based on quotations from the manufacturers for the installation of the equipment. We are of the opinion that an erection cost submitted by a manufacturer and included as part of the cost of equipment in place is a reliable estimate and should be given more weight than the Company's estimate for erection based on the weight of the equipment.

[6, 7] The Company also claimed that the cost of repaving the streets where the tracks have been abandoned but where busses are now being operated should be included as property used in public service. The Company's contention is that the new pavement serves the same purpose in bus operation that the original track served in railway operation.

We do not accept this theory. The streets were repaved either because of the requirements under the franchise or by agreement with the city when the city's acquiescence in the abandonment of the track was requested. The Company does not have any proprietary right in the new pavement. We are of the opinion that the cost of paving all streets where street railway service has been abandoned should not be included in property used in public service, irrespective of whether another type of transportation service was substituted for the abandoned service. The amount expended for the new paving should be charged to the depreciation reserve along with the estimated cost of the abandoned track. If the accumulations in the depreciation reserve are insufficient to cover the property to be abandoned, that part for which no reserve has been accumulated is a loss to be borne by the investor. The exception to this

rule is that when a substitution of a new service for an old one is made, and the substitution results in a saving in operating expenses that is reflected in lower rates or improved service, the cost of the part of the property that was abandoned prior to the lapse of its entire life should be amortized over a reasonable period and the charge considered as an operating expense.

In the instant case there was no reduction in rates by reason of the abandonments in question. The paving cost should therefore be charged to the depreciation reserve along with the track. If the reserve is insufficient to cover this the balance will have to be charged to surplus.

[8] It was also contended that the feeder wires and rails used to serve Lake Contrary park should be transferred from "nonused" to "used" property classification because the park receives its energy over these feeder wires and the rails are used as returns for the circuit.

The Company's contention should not be given much weight. The track accounts show a total reproduction cost of \$42,000 and a cost of reproduction less depreciation of \$15,600. The poles, guys, and anchors have a reproduction cost of \$1,207 and a cost of reproduction less depreciation of \$923, and the overhead wires and appurtenances that serve this line (Account 521) have a cost of reproduction of \$3,859 and a reproduction cost less depreciation of \$3,495. (The above costs do not include overheads.) The electrical distribution system of the Lake Contrary line, therefore, has a total cost of reproduction of \$5,066 and a cost of reproduction less de-

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preciation of \$4,418. A distribution system designed to serve the Lake Contrary property could be constructed for considerably less. It is quite obvious that there are no grounds to substantiate the Company's contention that the track, with its high cost, should be included in the property used in public service when its only service is that of a return for the electric circuit. We will, therefore, allow only the cost of the overhead distribution system.

[9] The Commission's engineers classified four Green chain-grate stokers as "nonused" because they had not been completely installed and could not be used at the time of the appraisal. The Company included these stokers with the useful property on the theory that they may become necessarily useful at some future date if the price of oil or gas rises considerably and it becomes more economical to use coal. The Commission is of the opinion that the exclusion of the Green stokers was in line with the general practice of the Commission. These stokers have not been completely installed, and, therefore, should not be considered as used and useful in public service. Their availability at some future date does not justify their inclusion in the rate base if they are not usable at the time of the appraisal and if there is no evidence that they will become useful in the immediate future.

[10] Another point of difference is the exclusion by the Commission's engineers of the equipment assigned to the merchandising department. This was designated by the Commission's engineers as not used in public service and assignable directly to mer-

chandising. The Company's contention is that the furniture and fixtures in this department would be necessary even if the Company did not carry on any merchandising activities because of the necessity of maintaining a merchandising department to stimulate and find new uses for electrical energy. The items excluded have an estimated investment cost of \$11,011, a cost of reproduction of \$10,346, and a cost of reproduction less depreciation of \$8,238.

The fact that these facilities are being used for merchandising cannot be escaped. The contention that the expenditure would still be necessary to stimulate new business can also be made in reference to other expenditures assigned to nonutility activities which may not actually disappear if the nonutility activity disappeared. We refer to the portion of the officers' salaries, rent, bookkeeping, and supervisory costs which may not be decreased if merchandising activities ceased. However, it is proper accounting practice and is an accepted procedure to assign a portion of these expenditures to merchandising. We are of the opinion, therefore, that the equipment used for merchandising should be excluded from property used and useful in public service.

[11] The Company, at the hearing and in its brief, contended that the allowances made by the Commission's engineers for omissions and contingencies are entirely insufficient. The amounts allowed by the Commission's engineers vary for the various accounts and are shown in Commission's Exhibit 5. The total allowance based on the cost of reproduction was

\$105,235, which is equivalent to 2.614 per cent of the cost of reproduction of the properties exclusive of lands owned in fee. The Company's allowance for omissions and contingencies is not segregated but is included in the unit costs. A comparison of the two amounts, therefore, cannot be made. We are of the opinion, however, that an allowance of 2.614 per cent of the cost of reproduction of the properties is adequate as it is more than this Commission has generally allowed in the past. On most electrical properties the Commission has found 2.04 per cent for omissions and contingencies to be adequate. The allowance for omissions and contingencies for the railway department amounted to 2.079 per cent of the cost of reproduction of that property exclusive of land owned in fee. The allowance for the steam heat department amounted to 1.27 per cent and for the bus department, 1.009 per cent. The allowance for this item for the railway department is below that for the electric department because a large part of the cost of the railway department consists of expenditures for transportation equipment where the possibility of omissions is much less than on construction items. The same reason holds in the bus department where practically all of the property consists of major items in which the element of omissions and contingencies is a small factor. The small allowance for omissions and contingencies for the steam heat department is explained by the fact that it was assumed that the entire distribution system would be constructed by a contractor, and that in his costs a provision would be made for omissions and

contingencies of construction. The allowance of 1.0 per cent on distribution mains is, therefore, to provide only for omissions in the inventory and to take care of hidden quantities. The cost of the distribution mains of the steam heat system, being approximately 80 per cent of the total cost of the steam heat properties, justifies the low composite allowance for this item.

Street lighting equipment.

[12] Under provisions of a contract with the city of St. Joseph, the Company rebuilt the existing street lighting system in St. Joseph in 1925 and constructed additions to and extensions of the system. The charges to fixed capital accounts on March 31, 1932, for rebuilding and extending the street lighting system amounted to \$116,818.08. The city agreed to pay the Company therefor \$5,000 a year as rental, for twenty years, with the option to purchase the street lighting distribution system at any time during the twenty years for \$100,000 less the rental which the city had paid to the Company prior to the time of exercising the option. Up to March 31, 1932, payments aggregating \$29,166.67 had been made by the city, which payments have been credited to a suspense account.

The Commission's engineers estimated that the municipal street lighting system has an estimated investment cost of \$120,711, a reproduction cost of \$139,224, and a reproduction cost less depreciation of \$119,061. The above are exclusive of overheads. The discrepancy between the estimated investment and the fixed capital charges is no doubt accounted for by the fact that the latter represents only

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the cost of rebuilding and extending the then existing lighting system.

The Company's appraisal (Exhibit 34) does not segregate the municipal lighting system, nor is it feasible to determine the cost of reproduction nor the cost of reproduction less depreciation of this property from the Company's exhibit.

The Commission's accountants, in their report, state that if the lighting system is included in the rate base and the Company is permitted to earn a return thereon, the annual payments made by the city should be considered as rental and credited to operating revenues. If, however, the lighting system is excluded from the rate base, the cost should be included in a suspense account against which the annual payments should be credited.

It is our opinion that the latter view is the more reasonable in this case. As a practical matter, the city is buying the lighting system from the Company on a deferred payment plan. Since the property will pass out of the rate base when the twenty payments have been completed, and since the city has the option to complete payment at any time, the exclusion of the property from the rate base and the exclusion of the payments from revenue is equitable and we will so consider the matter in our finding.

Buchanan county power transmission property.

The Commission's engineers estimated the cost of reproduction of the transmission property to be \$141,785 and the cost of reproduction less depreciation to be \$133,988. This is exclusive of general overheads. The Company's engineers did not submit

any estimate of the reproduction cost of this transmission line.

General Overheads

[13] The Commission's engineers varied the allowances for engineering and superintendence from 1 per cent on some accounts to 5 per cent on others. If we calculate composite percentages on the cost of reproduction exclusive of land and general equipment they are 4.884 per cent on the electric properties, 4.229 per cent on the railway properties, 3.036 per cent on the steam heat properties, and 1.983 per cent on the bus property. The material decrease in the composite allowance for engineering and superintendence on the bus and railway departments is again attributable to the fact that it was assumed that little engineering expenditures would be necessary in the design and construction of the rolling stock. The Company's engineers, in their appraisal, included 5 per cent for engineering on all the electric equipment and all transportation equipment, both electric cars and busses, exclusive of land and general equipment, and 2.5 per cent on the steam heating property.

The Company contends that the amount of engineering and superintendence involved in the selection of equipment to meet the unusual problems in St. Joseph occasioned by the steep grades and traffic conditions peculiar to this city justifies an allowance of 5 per cent for this undistributed cost. We cannot agree with the Company's contention that the amount to be expended for engineering on rolling stock, both in the electric railway department and the bus department, justifies an allowance, on a percentage

basis, equivalent to that necessary for the design of the balance of the system. We are, therefore, of the opinion that the Commission's engineers were correct in their assumption that a smaller percentage for engineering and superintendence should be applied to the railway property. It does seem to us, however, that our engineers carried precision to an unnecessary refinement in varying the allowance for engineering by accounts.

We are of the opinion that allowances of 5 per cent on the electric property, 4.5 per cent on the railway property, 2.5 per cent on the steam heat property, and 2 per cent on the bus property, on all items except land and general equipment are adequate and reasonable, and we will consider these in our determination of fair value.

[14, 15] The Commission's engineers and the Company's engineers each assumed that the allowance for preliminary organization, legal and administrative, and miscellaneous expenditures would approximate 3 per cent on the basis of the cost of reproduction. On the basis of the investment cost, the Commission's engineers estimated this allowance to be 2.5 per cent. The only difference in the treatment of this item by the Commission's engineers and the Company's engineers is that the former did not apply this percentage to the items of land, engineering, and superintendence, and omissions and contingencies. Since this item is, of itself, a judgment figure, we can see no reason for applying it to other undistributed costs which are, in themselves, based on estimates.

[16, 17] Taxes during construction

were computed by the Commission's engineers on the basis of the amount of taxes paid by the Company related to the assessed valuation and the investment in property. The rate of taxation thus determined was then applied to the reproduction cost, adjustment being made for the length of time that the various items of property would be under construction. This method resulted in composite allowances, based on all items except land and general overheads, as follows:

	Cost of Reproduction	Less Depreciation
Electric property ...	0.683%	0.681%
Steam heat property .	.510	.507
Railway property516	.521
Bus property062	.065

The Company's engineers based their calculation of taxes on the rate paid by the Company in 1931. This rate was applied to the Company's valuation, assuming construction uniformly spread over a period of eighteen months. The assessed valuation did not enter into the calculations. The Company's calculations resulted in an allowance for taxes of 0.92 per cent on all items including land and engineering and superintendence.

The item of taxes during construction is difficult to ascertain. It is a well-known fact that, as a matter of practice, very little taxes are actually paid during construction. Our engineers, in their study of the Company's records to determine the investment cost of the property, found no record of any taxes ever having been paid during the original construction. Theoretically, some taxes should accrue during the reconstruction of a property of this magnitude. We are

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of the opinion that an allowance of 0.75 per cent on all physical property is adequate to cover this item of undistributed cost during construction. Taxes should be included on land as well as on the structural items of property.

[18, 19] The Commission's engineers based their calculations of interest during construction on a 7 per cent rate, and assumed different construction periods for the various parts of the properties. Under this assumption interest was calculated for half of the period that each part of the property would be under construction. The resultant interest during construction based on all the properties, exclusive of land owned in fee, was 4.845 per cent on the electric properties, 3.531 per cent on the steam heat properties, 2,988 per cent on the railway properties, and .470 per cent on the bus properties. The above percentages were based on the cost of reproduction and were calculated to include interest on the other general overheads. The composite percentages vary somewhat when calculated on the basis of the total cost of reproduction less depreciation because the amount of accrued depreciation varies by accounts, and the percentage for interest also varies by accounts.

The Company's engineers assumed a rate of interest of 8 per cent and a construction period of one and one-half years, and based their interest calculation on the theory that the money would be used at a uniform rate during the entire construction period, and, therefore, that the total interest paid would be equivalent to the entire amount of money involved at 8 per cent for one half the construction period.

This results in the addition of 6 per cent on the electric property, the construction period being one and one-half years, 4 per cent on the street railway, bus property, and steam heating property, the construction periods being assumed as one year.

Attorneys for the Company, in their brief, criticized our engineering department for assuming one of the functions of the Commission in deciding that seven per cent was a fair return, and, therefore, using that rate as the rate of interest during construction. The record does not indicate that our engineering department assumed that 7 per cent was a fair rate of return, nor that the use of 7 per cent as the rate of interest during construction was based on such an assumption. We note that such criticism may reasonably be directed against the engineers of the Company, who used 8 per cent as the rate of interest during construction.

We are of the opinion that in the construction of a property of this magnitude, assuming that there was necessity for the service because of the nonexistence of the utility, funds could be obtained without the payment of interest at a rate higher than 6 per cent, and we shall, therefore, assume that 6 per cent is a reasonable rate for interest during construction. We are of the opinion that our engineers in this matter, too, carried precision too far in assuming that the various units of property will be started at different times in order that they may be completed at the time all the property went into service. We shall assume that the money is obtained uniformly over the construction period, and that the construction period is approximately

one and one-half years for the electric property, one year for steam heat and railway properties, respectively, and six months for the bus property. This results in an allowance of 4.5 per cent for the electric property, 3.0 per cent for the steam heat and railway properties, respectively, and 1.5 per cent for the bus property. These percentages will be included in arriving at the general overheads. In the calculation, interest should be charged on engineering and preliminary expenses as well as on the materials and labor during construction.

The Commission's engineers estimated the general overheads on the Buchanan county power transmission line to be \$17,421 on the basis of cost of reproduction and \$16,697 on the basis of cost of reproduction less depreciation.

Reproduction Less Depreciation

[20] The Commission's engineers and the Company's engineers submitted estimates of the depreciation of property. These were determined by observation in the field and a study of the operation and maintenance of the property. The same basic theory was used by both groups of engineers in making the depreciation study, the only point of variance being that the Commission's engineers depreciated line transformer installations and meter installations on the electric property and the Company's engineers did not. The amount involved in these two accounts is practically negligible as the total is less than \$2,500 when the proper allowance for omissions and contingencies is included. The Company's contention is that meters and transformers are moved from

place to place, and replacements of meters are made for purposes of testing and overhauling and the installation costs charged to operation. The original labor cost is added to the capital account, and, therefore, should not be depreciated. The Company further states that in accordance with the uniform classification of accounts prescribed by this Commission, only the materials account is affected when a change in meter or transformer installation is made.

Since the amount involved will hardly affect the rate base our comment on the Company's contention here is, perhaps, purely academic. However, it seems reasonable to us that in arriving at the fair value of a property at a particular time the cost of installing transformers and meters should be depreciated to the same extent that the meters and transformers are depreciated, because the purpose of the valuation is to determine the fair value of the property at the time of inventory. It seems obviously illogical to have a transformer in 25 per cent condition and the labor in 100 per cent condition on the same date. The engineers' task is to determine the amount of depreciation existing at the time of the appraisal, and in such a determination the transformer installation, being a part and parcel of the transformer in place, should be depreciated.

[21] We wish to comment at this point on the methods used by the Commission's engineers in determining the accrued obsolescence in the street cars; namely, that of comparing the cars with Birney type cars on the basis of cost per passenger seat. It seems to us that our engineers should

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have found a more reasonable method of determining the obsolescence of the cars than by comparison with a smaller car of a different type designed to be used for different service than that for which the cars involved here are used.

A comparison of the percentages representing the depreciated conditions of the various properties indicates, however, that there is not so wide difference in the percentages found by the Commission's engineers and those found by the Company's engineers as to cause any concern. Comparing the same items of property and excluding land and all overheads, we find that the Commission's engineers found the used and useful electric property to be in 88.5 per cent condition, whereas the Company found the same property to be in 90 per cent condition. The Commission's engineers found the used and useful steam heat property to be in 81 per cent condition whereas the Company's engineers found this property to be in 76.3 per cent condition. The Commission's engineers segregated the electric transportation property into the part serving the city and that part serving the county, and also set up the bus department separately. They found the percentage reflecting the present condition of the used and useful electric railway property serving the urban territory to be 78 per cent and that part of the used and useful electric railway property serving the interurban territory to be 77 per cent. The bus property was estimated to be in 84 per cent condition. The Company combined all the transportation properties serving the urban territory and estimated the per cent condition of both the electric railway

and bus property to be in 83.44 per cent condition. In this calculation, the resort property has been excluded. It may be noticed at this point that the high condition percentage found by the Company's engineers may be attributed largely to the higher condition percentage placed by them on the street cars serving St. Joseph. The Company deducted practically nothing for obsolescence. The comparable composite percentage for the electric railway and bus lines serving St. Joseph, based on the Commission's engineers' calculations, indicates that the percentage reflecting the condition of the total urban transportation property is 78.4 per cent.

Based on the evidence before us and taking into consideration all the elements of depreciation, we are of the opinion that the percentages representing the depreciated condition of the various used and useful properties are as follows:

Electric property	90%
Steam property	80%
City Electric Railway property	80%
Interurban Railway property	80%
Bus property	84%

[22] There is some difference of opinion between Commission's engineers and the Company's engineers as to the items of general overheads which are susceptible to depreciation. The Company contends that only engineering and superintendence should be depreciated while the Commission's engineers depreciated all items of overheads except preliminary organization, legal, and administration expenses. It has been the practice of this Commission to depreciate all the general overheads. There is some logic

in the Company's contention that certain of the overheads should not be depreciated. It is quite obvious that preliminary organization, legal, and administrative expenses are incurred only at the inception of the project and are not retired when the physical elements of the property are retired. That item of overheads should, therefore, remain undepreciated when determining the present value of the property. The other items, however, do attach themselves to the physical items of property and should be retired when the physical items of property go out of service. The amount of accrued depreciation in the labor and materials comprising a certain portion of the property is, therefore, also chargeable to the overheads directly related to the labor and materials, such as engineering, omissions and contingencies, interest during construction, and taxes during construction. In the determination of the present fair value of the property we shall, therefore, deduct for depreciation on all the general overheads except preliminary organization, legal, and administrative expenses.

Cost of Financing

[23] The Company contends for an allowance of 4 per cent to cover the cost of financing, or, in other words, to pay for the cost of assembling the funds necessary for the construction of this property. Witness Hamilton, who made the estimate, differentiates between the cost of financing and bond discount, stating that the cost of financing is the amount which the Company sacrifices to the banker to

cover the commissions to salesmen and a residual for banker's profit.

We can see no justification for the inclusion, as part of the rate base, of the cost of financing the project. The difference between the amount received for bonds and the par value, known as bond discount, includes the amount paid to the salesmen for selling the securities and, as a practical matter, is treated as part of the interest on the bonds because it is amortized over the life of the bonds. We are of the opinion that the cost of financing, as treated by the company in this case, should be given consideration in arriving at the rate of return, but should not be included as part of the present value of the property. This view has been upheld by the Supreme Court of the United States in a number of cases. *Galveston Electric Co. v. Galveston*, 258 U. S. 388, 397, 66 L. ed. 678, P.U.R.1922D, 159, 42 S. Ct. 351; *Denver Union Stock Yard Co. v. United States*, 57 F. (2d) 735, 748, P.U.R.1932C, 225; *Wabash Valley Electric Co. v. Young*, 287 U. S. 488, 500, 77 L. ed. 447, P.U.R.1933A, 433, 53 S. Ct. 234; *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 77 L. ed. 1180, P.U.R.1933C, 229, 244, 53 S. Ct. 637.

Cash Working Capital

The Commission's engineers submitted estimates (Exhibit 6) of the cash working capital requirements of the various departments. The Company introduced Exhibit 39 showing the estimates of its engineers of the cash working capital requirements. The comparative estimates are as follows:

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	Commission's Engineers' Estimate	Company's Engineers' Estimate
Electric department	\$95,600	\$140,495
Transportation department		
Street railway \$11,500		
Bus	3,650	
	15,150	44,559
Heating department	8,700	8,727

Included in the Commission's engineers' estimate for the electric department is the sum of \$15,000 as a cash buffer fund. The Company's engineers included \$60,000 for this item and \$1,960 additional as reserve for injuries and damages. The Company's engineers also included \$30,000 as cash buffer fund, and \$10,524.15 as reserve for injuries and damages for the transportation department whereas the Commission's engineers included only \$5,500 for the buffer fund and did not set up any additional sum for reserve for injuries and damages. The estimates for the heating department are substantially in agreement, both groups of engineers assuming that \$1,000 was adequate as a cash buffer fund.

The Company contended, in substantiation of its estimates of the cash buffer fund for the various departments, that it has endeavored to maintain a minimum cash balance of \$90,000 in the banks. There is no evidence, however, of the portion of this that is used for the merchandising activities of the Company. Nor has it been entirely explained why it is necessary to set aside more than \$40,000 for the transportation department for a buffer fund and to provide for the payment of claims for injuries and damages, when the Company collects all revenues at the time of the rendition of service and prior to the payment of the majority of operating

expenses. These revenues help to bolster the cash balances of the Company.

We are of the opinion, in view of the facts before us, that a reasonable and adequate allowance for cash working capital is \$125,000 for the electric department, \$25,000 for the transportation department, and \$8,700 for the steam heating department, and we will include the sums in our determination of fair value.

Materials and Supplies

The Commission's and Company's engineers submitted estimates of the materials and supplies necessary for the operation of the properties. These are based on the current amounts on hand. The Commission's engineers' estimate is as of April 1, 1932, whereas the Company's engineers' estimate is as of July 1, 1933. They are as follows:

Department	Commission's Engineers	Company's Engineers
Electric	\$52,462	\$59,488
Transportation	46,236	34,100
Heating	3,910	3,860

There was no dispute as to the accuracy of either of the two estimates. The differences are no doubt attributable to the fact that the inventories of materials and supplies were made at different times. Since we are adjusting the inventories to the date of April 1, 1932, we will include the Commission's engineers' figures in our determination of fair value.

Going Concern Value

[24] The Commission's engineers did not submit any evidence of the going concern value of the Company. The Company's engineers included for

going concern value the amount of \$827,512 for the electric department, this being fifteen per cent of all items included in their inventory except cash working capital and materials and supplies; \$249,004 for the transportation department, this being 5 per cent of all the items except cash working capital and materials and supplies; and \$44,444 for the steam heating department, this being 10 per cent of all the items with the same exceptions as above.

Considerable testimony, originally introduced by F. C. Hamilton, of Henry L. Doherty & Company, in Case No. 5550, *supra*, and, by agreement of all parties interested in this proceeding, considered as part of the testimony here, purports to substantiate the Company's estimates of this intangible element of value. However, with all the theorizing on the cost of attaching business or training personnel, or any of the other elements of going concern value, the witness uses arbitrary percentages in arriving at the amount to be included for going concern value.

We see no necessity for making a separate determination of this intangible element of value. The Supreme Court of the United States affirms the propriety of this action in a number of cases. *Los Angeles Gas & E. Corp. v. California R. Commission*, *supra*; *Dayton Power & Light Co. v. Ohio Pub. Utilities Commission* (1934) 292 U. S. 290, 78 L. ed. 1267, 3 P.U.R.(N.S.) 279, 54 S. Ct. 647; *Columbus Gas & Fuel Co. v. Ohio Pub. Utilities Commission* (1934) 292 U. S. 398, 78 L. ed. 1327, 4 P.U.R.(N.S.) 152, 54 S. Ct. 763, 91 A.L.R. 1403. In our determina-

tion of the fair value of the various properties we shall consider them as operating facilities, the entire utility being considered as a going concern, and we shall make the proper allowance for this element of value.

Fair Value

[25] In arriving at the fair value of the properties we are considering material prices and labor rates effective at the time of the appraisal by the Commission's engineers, and the fair values set out hereinafter are as of April 1, 1932, giving consideration, however, to probable future price changes as disclosed by the evidence. We have given careful consideration in arriving at these values to the fair market value of land, the estimated investment, cost of reproduction, and cost of reproduction less depreciation of the facilities used and useful in rendering the various utility services to the Company's patrons, the proper allowances for general overheads, cash working capital, materials and supplies, and all intangible elements of value inherent in these properties, treated as a going concern with its business attached, necessary records and trained personnel, and we are of the opinion that the fair value of each property is as follows:

Electric property	\$4,600,000
Transportation property	3,260,000
Steam heat property	360,000
Buchanan county transmission lines	160,000

Annual Depreciation Requirement

The Commission's engineers submitted Exhibit 9, containing their estimates of the annual depreciation requirements of the various departments of the Company. The engineers compared the net retirements of deprecia-

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ble property for the period 1921 to 1931, inclusive, with the estimated investment in property on December 31st of each year for that period to obtain the ratio of retirements to investment. The percentages thus obtained, amounting to 1.05 per cent for the electric property, 4.63 per cent for the street railway property, and 1.75 per cent for the steam heat department were rounded out to 2 per cent, 5 per cent, and 2 per cent, respectively. The bus department was of too recent origin to enable the engineers to study its experience of retirements. The engineers assumed that 6 per cent annually would cover the retirement requirements of the bus property. The amounts estimated by the Commission's engineers that should be set aside annually for depreciation requirements are \$90,800 for the electric department, \$164,500 for the street railway department, \$11,700 for the bus department, and \$7,850 for the steam heat department.

The Company's engineers submitted Exhibit 35 setting out in detail their estimates of the annual depreciation requirement for the various properties. These were determined by estimating the past useful life and probable future life of each major item of property, and then dividing this total estimated useful life into the reproduction cost less estimated salvage to obtain the amount to be set up annually to retire the property at the end of its useful life. The amounts estimated by the Company's engineers are \$180,113 for the electric department, \$139,325 for the urban transportation lines, \$13,521 for the interurban transportation lines, and

\$17,444 for the steam heating department.

[26] The Commission's engineers' estimate of the annual depreciation requirement for the electric department is, in our opinion, rather low. We have found in previous cases involving electric properties comparable to this one that 3 per cent was a reasonable allowance for annual depreciation requirement. Based on the Commission's engineers' estimate of the reproduction cost of the electric property, this is approximately \$135,000. We are of the opinion that this amount is adequate for the electric property.

The estimate of the Commission's engineers for the annual depreciation requirement for the transportation property is somewhat higher than the estimate of the Company's engineers, the former's estimate being \$176,200 while the latter's estimate is \$152,846. The higher estimate of the Commission's engineers is attributable to the fact that they included in the total of retirements during the 11-year period of 1921 to 1931, inclusive, the property classified as nonused on the date of appraisal and property abandoned between the date of appraisal (April 1, 1932) and January 1, 1933. These two items account for approximately one third of the retirements. If these are to be wholly or in part provided for under an amortization plan, the amount necessary for annual depreciation would be considerably less. We are of the opinion that \$160,000 for annual depreciation for all the transportation property is adequate.

The estimates of the various engineers of the annual depreciation requirement for the steam heating de-

partment differ considerably, the company's estimate being more than twice that of the Commission's engineers' estimate. Company's Exhibit 35 shows estimates for annual replacement reserve requirements of \$8,748 for boiler plant equipment and \$5,679 for the distribution system. These estimates are, in our opinion, rather high. Commission's engineers' Exhibit 9 shows the average retirements during the period 1921 to 1931 to be less than \$4,000 a year, and the maximum net retirements to be \$13,336. We are of the opinion, therefore, that an annual allowance of \$10,000 a year for replacement reserve requirement is adequate.

The amounts shown above for annual depreciation requirement should be adjusted annually by adding 3 per cent of net additions to electric property, 5 per cent of net additions to transportation property and 3 per cent of net additions to steam heating property subsequent to April 1, 1932. This will effect the necessary adjustment by reason of the abandonment of certain properties and the provision for their amortization.

The Commission's engineers also estimated the annual depreciation requirement of the Buchanan county transmission line to be \$4,100. The Company's engineers submitted no estimate for this item. We shall, therefore, accept our engineers' estimate.

Street Railway Abandonments

[27] Subsequent to the filing of the Commission's engineers' appraisal, the Company received permission to substitute bus service for street car service over the Jules street line (Case

No. 7976, Order issued March 29, 1932) and the South park line (Case No. 8684, Order issued April 9, 1934 [5 P.U.R.(N.S.) 253]).

The track and special work of the Jules street line included in the Commission's engineers' appraisal are itemized in Exhibit 4, and have an estimated investment cost of \$127,480, a cost of reproduction of \$134,682, and a cost of reproduction less depreciation of \$95,256. These amounts are exclusive of overheads. The Company did not include the Jules street line in its appraisal. The Company submitted Exhibit 36 showing its estimate, based on its appraisal, of the balance of the reproduction cost new to be amortized because of abandoned and unused property. The lines involved were the Hyde park, Jules street, Lake avenue, and Messannie street. According to the Company's estimate, the total unexpired balance to be amortized for the above lines amounts to \$185,126. This amount includes property abandoned and property no longer used but not yet abandoned. At the time these lines were abandoned there was no request for any amortization of the unexpired life nor did the city indicate that it would acquiesce in this. We will, therefore, make no allowance for their amortization, but consider their loss one of the hazards of the business.

The abandonment of the South park line did not come before the Commission until 1934 (Case No. 8684, *supra*). In that case the Commission indicated that property that became nonused by reason of the substitution of trolley busses for street cars would be considered in this valua-

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tion case now before us. Exhibits and correspondence in Case No. 8684 showed that, based on the Commission's engineers' appraisal, the property had an estimated investment of \$245,844, a reproduction cost of \$288,460, and reproduction cost less depreciation of \$216,789. Based on the Company's engineers' appraisal, the cost of reproduction was \$308,643, and the cost of reproduction less depreciation was \$243,234. These estimates are exclusive of overheads. The unamortized balance was estimated by the Company's engineers to be \$180,011. This includes overheads and repaving of streets where the tracks were removed. Based upon the Commission's engineers' estimates, the Commission found the unamortized balance to be not less than \$157,000, and granted permission to the Company to charge \$15,700 a year for ten years to operating expenses. The Commission, however, realizing that the charge would actually be borne by the electric users because the street railway department is not even earning depreciation requirements, indicated its hesitancy in doing this, and stated that this charge would be permitted only so long as it would not result in a burden on the electric consumers.

In recent cases (Nos. 8683, 9090, and 9091, issued April 3, 1936 [13 P.U.R.(N.S.) 173]) involving additional substitutions of bus and trolley car service for electric railway service in St. Joseph, the Commission again discussed the propriety of permitting the amortization of the abandoned property and charging same to the operating expenses of the combined electric and street railway facil-

ities. The Company submitted copies of ordinances passed by the city of St. Joseph in 1912 and 1915 which indicated that the city considered the street railway utilities and other utility operations of the Company as a unit when it required the Company to pay to the city annually one half of 1 per cent per annum of the gross receipts derived from the operation of the system of street railways and *all other kinds of business* (italics ours) for a period of three years, and thereafter one per cent of the gross revenue. The Commission also considered the resolution of the city council requesting that this Commission grant the abandonment of certain street railway lines and the substitution therefor of bus service, and permit the Company to charge the unexpired balance in the value of the abandoned property as an operating charge to the combined utilities. The Commission, after discussing the issues in those cases (8683, 9090, 9091, *supra*), concluded that the amortization of the unexpired balances was justified and granted the Company permission to charge annually for a period of ten years as operating expenses the sum of \$40,711.

Since the Commission, in the cases mentioned hereinbefore, has already granted the Company permission to charge as operating expenses the various sums set out, we should consider these additional operating expenses in determining the net revenue available for return. The amount thus far allowed as amortization charges totals \$56,411 annually. We are of the opinion, however, that the Company should file with the Commission at the end of each year a statement show-

ing the unamortized balances less salvage charged to Account 419, this being the account to which all credits are to be made and against which all deductions for abandoned property are to be made, as prescribed in our uniform system of accounts, to enable the Commission to determine whether the consumers of electricity in St. Joseph are being unreasonably burdened by reason of this amortization charge. The statement showing the unamortized balances charged to Account 419 should be in sufficient detail to permit the Commission's staffs to verify the charges.

Operating Revenues and Expenses

Commission's accountants made an audit of the operating revenues and expenses for the year ended December 31, 1931, and three months ended March 31, 1932. Commission's accountants made certain adjustments of the operating revenues and expenses. The adjusted figures for the year ended December 31, 1931, are shown in Commission's Exhibit 11, and are as follows:

	Operating Revenues	Operating Expenses (Exclusive of Depreciation)	Net Operating Revenues Available for Depreciation and Return
Electric department	\$1,921,007.88	\$902,862.49	\$1,018,145.39
Transportation department	572,936.75	532,351.61	40,585.14
Steam heat department	104,489.70	64,316.34	40,173.36
Total	\$2,598,434.33	\$1,499,530.44	\$1,098,903.89

[28] The Company objected to certain adjustments that Commission's accountants had made to operating expenses and at the hearing in this case introduced their Exhibit 56 which sets forth in detail the various items to which they objected. Likewise, testimony was offered by Com-

pany witnesses on the various items in question. They are as follows:

Management fee paid to Henry L. Doherty & Company (\$45,439.48). Commission's accountants eliminated the management fee of 1.75 per cent of gross revenues paid Henry L. Doherty & Company for the reason that they were unable to determine from the records in St. Joseph whether the amount of the fee represents the actual cost of services rendered to the St. Joseph Company. These fees are paid to Henry L. Doherty & Company as fiscal agents for Cities Service Company and deposited in Cities Service Company account.

In addition to the management fee hereinbefore mentioned, the management company renders bills and makes collections from the operating companies for the services of its employees while engaged on the properties of the operating companies, and monthly bills are then rendered against Cities Service Company by Henry L. Doherty & Company for the total amount of its administration expense, less the amounts collected for

the services of its employees while engaged on the properties of the operating companies.

Witnesses Semrad, Harrington, and Hamilton testified at length concerning the services rendered to the operating companies by this management company and introduced exhibits

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illustrative thereof. Witness Hamilton also introduced an exhibit showing the administration revenues and expenses of the Cities Service Company for the years 1921 to 1930, inclusive. This statement shows that the administration expenses exceeded the revenues from collections of fees in the amount of \$1,768,440.26. No evidence was introduced whereby we could determine that the administration expenses were just and proper and could be considered a proper charge to the operating expenses of the subsidiary companies.

This Commission has already expressed itself concerning fees paid by management companies. In some cases they have been allowed, but only when sufficient evidence has been introduced to show that the charge was a reasonable one for the services rendered and that there were no profits accruing to the management company from the collection of fees.

In this case we have nothing before us except the statement of witness Hamilton that the administration expenses of the Cities Service Company exceeded the revenues from collections of fees in the amount of \$1,768,440.26 for the years 1921 to 1930, inclusive, and as no evidence was introduced whereby we could determine that the administration expenses of the Cities Service Company were just and proper, we will not allow the payment of this management fee as a proper charge to operating expenses.

[29] *Employees' bonus and benefit payments under employee subscription plan (\$14,796.32).* Under this plan, employees of the St. Joseph Railway, Light, Heat and Power Company

were permitted to purchase from Henry L. Doherty & Company certain securities of Cities Service Company and to make payments therefor in equal monthly instalments over a 5-year period. These purchases were made under subscription agreement which provided, among other details, that subscribing employees would be charged interest at 5 per cent on all unpaid balances and would be credited with interest or dividends on all undelivered securities.

The subscription agreements provided that at the end of five years from the dates of the subscription a bonus would be paid to all subscribing employees remaining in the service who had fully paid their subscription and who had not disposed of their securities (unless excused by Henry L. Doherty & Company), the said bonus to be paid in preferred stock of Cities Service Company in an amount at market prices then prevailing equal to 25 per cent of the employees' subscriptions. The subscription agreements further provided that in the event of the permanent disability or death of a subscribing employee (if he was an employee at the time of permanent disability or death and his account was in good standing) his subscription was to be considered as fully paid up, and that the securities subscribed for were to be delivered to such employee or his beneficiary, together with a proportionate share of the 25 per cent preferred stock bonus.

Various employees of this Company subscribed to the purchase of Cities Service securities under this subscription plan and in order to provide funds for the payment of the pre-

ferred stock bonus, the St. Joseph Company has made monthly cash payments to Henry L. Doherty and Company equal to 25 per cent of the monthly instalments paid by the employees under this subscription plan. The St. Joseph Company has also reimbursed Henry L. Doherty & Company for disability and death benefit payments made to St. Joseph Company employees by Henry L. Doherty & Company under the subscription agreements.

The amounts so paid by the St. Joseph Company have been included in operating expenses, but were excluded by Commission accountants in their audit.

In our opinion bonus and benefit payments made to employees to promote efficiency and prevent frequent turn-over are properly chargeable to operating expenses, but in this case these payments are contingent upon purchase by the employees of Cities Service securities and not upon the length of service or the efficiency of an employee.

We will, therefore, not allow these payments as a proper charge to operating expenses.

[30, 31] *Contributions, dues, and donations* (\$10,460.65). Commission's accountants eliminated from operating expenses payments made by the Company for contributions, dues, and donations. The Company contends that these payments constitute a properly allowable operating charge and at the hearing in this case introduced an exhibit wherein they classified expenditures of this nature as follows:

Contributions producing direct revenue	\$1,575.00
Contributions classified as a voluntary tax	5,104.50
Contributions producing indirect revenue	2,581.31
Miscellaneous donations	470.34
Dues paid account of executives and department heads	729.50
	<hr/> \$10,460.65

These expenses, in our opinion, are not properly chargeable to operating expenses. The activities for which these expenditures were made were for the most part participated in by the industries and people of St. Joseph at large. We recognize the contention that donations to and memberships in community and civic organizations are made for the purpose of bringing good will to the Company and strengthening the position of the Company in a community, and such being the case, certainly these expenses should be borne by the stockholders of the Company and not by the consumer public.

We will, therefore, not allow these expenses as a charge to operating expenses.

[32] *Rate case expenses*. Commission accountants estimated the rate case expense to be \$110,677.13. Company's Exhibit 56, presented at the hearing in this case, shows actual expenditures to be \$125,361.42. There will be additional expenses incurred by the Company for the services of its engineers and the costs of attending the hearings. No evidence was introduced to show what these additional expenses would amount to, but the Company should be allowed to include a portion of this additional expense in operating expenses when the final costs are determined. At this time we will include an additional

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sum of \$14,684.29 which we will amortize over a 10-year period and apportion to the various departments on the same basis as that used by Commission accountants. We will increase operating expenses of the various departments as follows:

Electric department	\$900.59
Railway department	385.46
Steam heat department	64.76
Bus department	117.62

Total \$1,468.43

[33] The Company has called our attention to the methods used by Commission accountants in apportioning these expenses and general expenses to the various departments and recommended that the gross revenues of each department be used as a basis for apportionment instead of the basis used by Commission accountants, i. e., located expenses.

Commission accountants have in most cases used located expenses of the various departments for apportionment of expenses of this kind on the theory that the actual costs of operation are what the officers supervise, whereas the Company contends that the gross revenues should be used on the theory that expenses of this nature are dependent upon the ability of each department to produce revenues.

Since the gross revenues are dependent upon the rates to a certain extent, it does not seem logical to us that this would have any effect on the cost of operation unless it would be that the officers would make an extra effort and devote more time to the department that is not earning what in their opinion is the proper amount of revenues to make it self-supporting.

We will, therefore, accept Commission accountants' basis for apportionment of the various expenses hereinbefore mentioned.

Federal income tax. Commission accountants included in operating expenses \$20,746.05 as Federal income taxes. This was based on the return which the Company had filed for the year 1931. At the hearing in this case witness Harrington testified that the Federal government had made a deficiency assessment against the 1931 income of the Company amounting to \$24,985.40. On cross-examination by Chief Accountant Ross he testified that the Company had accepted and paid this deficiency assessment.

As all net income on which this tax is paid was produced by the electric department, we will increase operating expenses of the electric department in the amount of \$24,985.40.

Model electrical home organization cost (\$1,912.35). During the year 1931 the Company equipped a model electrical home for the purpose of demonstrating to the public the use of various electrical household equipment. Commission accountants amortized this cost over a 5-year period and allowed the sum of \$382.47 as a proper operating expense for the year 1931.

During the year 1932 this home was discontinued and the Company now feels that the amount of \$1,912.35 should stand as an operating expense for the year 1931 or be prorated between 1931 and 1932.

As we are attempting to make rates for the future we cannot agree with this theory because of the fact that it is a nonrecurring expense and if

properly treated the amount of \$382.47 should be entirely eliminated.

However, as the amount involved is too small to have any effect on the net income of the Company we will make no adjustment.

[34] *Reallocation of expenses to merchandise operations.* Commission accountants eliminated from new business expenses certain items which they considered were strictly expenses incurred in connection with merchandising operations. The items and amounts are shown on pages 57 and 58 of Commission's Exhibit 11. Commission accountants also charged a portion of the commercial and general and miscellaneous expenses to merchandise operations on the theory that this department is separate and apart from the electric department and should stand its proportionate part of the expenses that are common to all departments of the Company.

At the hearing in this case the Company introduced its Exhibit 56 which shows the proposed basis for apportioning the expenses between new business and merchandise operations.

The Company in making its apportionment proceeds on the theory that its officers should be entitled to charge to new business expenses such items as in their judgment it would be necessary for the Company to expend if it were debarred entirely from merchandising activities.

No evidence was introduced by the Company to show that Commission accountants had erred in making their apportionments to the merchandising department. The only evidence we have before us is the exhibit introduced by witnesses for the Company

showing what in their opinion is properly chargeable to merchandising operations. Some of these apportionments are on an arbitrary basis while others are based on the theory that if they ceased selling merchandise the expenses would still exist and would be borne by the electric department.

Since these conditions do not exist and we must deal with facts, we will accept the apportionments made by Commission's accountants and make no adjustment of the charges made to the merchandise department by Commission's accountants.

[35] *Transfers from depreciation reserve.* The Commission's accountants, in Exhibit 11, point out that the Company has, on four occasions, and without permission of the Commission, transferred sums amounting to a total of \$1,259,823.34 from the depreciation reserve fund to "surplus," or to an account entitled "special surplus reserve." Of this sum, \$800,000 was transferred to the "special surplus reserve" and the balance, or \$459,823.34, to "surplus." The amounts transferred to surplus were to some extent used by the Company for the payment of preferred stock dividends. The amount transferred to the special surplus reserve is still intact, no distributions or dividends having been made out of it.

The Commission, in a recent case (Case No. 5550, *supra*) involving another property controlled by the holding company that controls the St. Joseph Company, severely criticized this practice, and ordered the Company to make the proper accounting entries to reinstate to the depreciation reserve the sums thus transferred. The Commission is of the opinion that

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this practice should not be permitted, and will require the Company to make the proper entries to transfer this sum of \$1,259,823.34 to the depreciation reserve.

Rate of Return

[36] The Company's witnesses testified that, in their opinion, the Company should be allowed a return of 8 per cent on its property in order to maintain its financial position. In recent cases the Commission has found that a return of $6\frac{1}{2}$ per cent is fair and reasonable. We see no unusual conditions existing in St. Joseph that would justify a greater rate of return and we are of the opinion that a $6\frac{1}{2}$ per cent return on this property is fair and reasonable.

Our accountants have reported that the revenues available for depreciation and return of the electric department for the year ended December 31, 1931, amounted to \$1,018,145.39. We have found, however, that there should be additional deductions for operating expenses amounting to \$900.59 for additional rate case expense, and \$24,985.40 for Federal income tax. This results in a decrease of the revenue available for depreciation and return to \$992,259.40.

The amount available for depreciation and return for the transportation property for the year ended December 31, 1931, was reported by our accountants to be \$40,585.14. This is subject to a deduction of \$503.08 by reason of increase in operating expenses to cover additional rate case expenses as discussed hereinbefore. The net available is, therefore, \$40,082.06.

[37] We have, previously in this

report, discussed the propriety of combining the electrical and transportation departments for the purpose of determining the reasonableness of the rates. We are aware of the suggestions of the city that the amortization of certain railway property be charged against the combined properties in order to obtain improved transportation facilities for the patrons in St. Joseph. We are also cognizant of the position of the city, expressed through its counsel at the hearing, that the city will not contest the combining of the street railway department and the electric department for the purpose of determining the reasonableness of the rates.

The consumers of electricity in St. Joseph, it may be admitted, derive certain benefits from the continued operation of a mass transportation system which may justify their being charged with the deficit in operating expenses of the electric railway system. By assuming this deficit the consumers of electricity are already paying for the continued maintenance of the property and the restoration to the investors of the value of unexpired service life of the supplanted facilities. These consumers of electricity should not, however, be compelled to pay electric rates sufficient to pay a return on the railway property as well as the electric property. We shall, therefore, combine the amounts available for depreciation and return from the electrical department, amounting to \$992,259.40, and the transportation department, amounting to \$40,082.06, or a total of \$1,032,341.46, only for the purpose of deducting therefrom annual depreciation requirements of both de-

partments and the amortization charges for the abandoned street railway facilities. These total \$351,411, which, when deducted from \$1,032,341.46, gives \$680,930 for return.

The Commission's engineering department submitted Exhibit 8 showing an apportionment of the power plant between the electric, steam heat, and street railway departments. The Company assigns part of the cost of generating steam to the steam heat department on the basis of the number of pounds of steam taken by it to serve the steam heating consumers. This cost includes only production expenses and makes no provision for depreciation or return on the portion of the boiler plant and appurtenances necessary to generate the steam for the heating department. The allocation in Exhibit 8 is based on the assumption that jointly used structures and boiler plant equipment should be apportioned on the basis of 25 per cent to the steam heat department and 75 per cent to the electric and railway departments, and that certain miscellaneous equipment should be apportioned on the basis of 10 per cent to the steam heat department and 90 per cent to the electric and railway departments. The details of this apportionment are shown on page 10 of Exhibit 8. In accordance with this exhibit the amounts assignable to the steam heat department are \$239,639 on the basis of estimated investment, \$248,243 on the basis of cost of reproduction, and \$220,237 on the basis of cost of reproduction less depreciation. These amounts are exclusive of general overheads. General overheads approximate 12 per cent. If the allowance for general overheads

is added, the estimated investment in the boiler plant assignable to the steam heat department would be approximately \$268,000, the reproduction cost would be approximately \$278,000, and the reproduction cost less depreciation would be approximately \$247,000.

The relative use of the boiler plant by the different departments varies considerably from year to year and during seasons of each year. Any allocation should, therefore, serve as a guide in the determination of the reasonableness of the rates rather than as an actual assignment of property to the different departments. A more satisfactory method would be to determine a reasonable charge per thousand pounds of steam and credit the electrical department and charge the steam heat department at that rate for the steam used. The boiler plant would then be considered as one unit.

However, since the charge to the steam heat department was based on production costs only, an adjustment should be made, in arriving at the excess earnings of the electrical department, to compensate for the use of the boiler plant equipment by the steam heat department. In calculating the amount necessary to yield a fair return on the property used in serving the consumers of electricity we shall deduct \$250,000 from the fair value of the electric department hereinbefore shown in this report. However, we shall not disturb the findings of the fair value of the property used and useful in serving the various departments.

No allocation will be made between the electrical and railway departments, but the charge for electricity for rail-

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way use should include carrying charges of the boiler equipment.

Since the electric department is already being charged with part of the depreciation and amortization charges of the railway department the balance available for return on the combined property should be considered as being derived from the electrical department only, and any excess over the amount necessary to yield a fair return on the fair value of the electric property should be the basis for a rate adjustment to the users of electricity.

The property used and useful in serving the consumers of electricity in St. Joseph has a fair value of \$4,600,000. From this amount there should be a deduction of \$250,000 representing the fair value of the steam boiler plant used in serving the steam heating customers. The electric consumers should, therefore, pay a return of $6\frac{1}{2}$ per cent on \$4,350,000, or the sum of \$282,750 per annum. The Company's revenues for 1931, as shown above, yielded a net return of \$680,930. This exceeds the amount necessary to yield a fair return on the property used and useful to serve the electrical consumers by \$398,180. Revisions in the electric rates in St. Joseph have been made since the date of the audit. One reduction, approximating \$13,800 a year, was effective July 1, 1935, and another estimated to amount to \$48,000 annually became effective December 15, 1935.

The Commission is of the opinion that the Company should reduce its electric rates as indicated above to yield not more than $6\frac{1}{2}$ per cent on the fair value of the property used and useful in serving electric consumers. The schedules should be filed within

sixty days from the effective date of this order.

The city calls attention to the present rate in force in St. Joseph wherein the Company charges each domestic customer the sum of 75 cents, regardless of the amount of electricity used, in addition to the charge based on the number of kilowatt hours used. The city, in its brief, asserts that this charge was not justified as a ready-to-serve or a minimum charge, but is an arbitrary addition.

There is no evidence in the record that would enable us to determine the basis of this charge. It is, however, a part of the rate structure, and the sums thus received become part of the total revenue from electric users, and compensate the Company for the use of the meters, for reading the meters, and other expenses. The ratepayer, however, feels that he gets nothing for this 75 cents. The criticism of the service charge is the psychological effect upon the consumers. We would suggest, therefore, that when the Company files its new schedule of rates the rate structure be altered to include, instead of the service charge, a minimum charge permitting the consumer the use of a specific number of kilowatt hours. We are of the opinion, however, that our order should not specifically require this type of rate structure. We find in practice that it is advisable that rate structures be handled through conference with our rate department, rather than through directive orders.

[38] The electric railway department, as stated previously in this report, is not earning its depreciation requirement. There can be no down-

ward adjustment in the street railway fares. An increase in the rates is not advisable as this would only tend to decrease the number of street car riders.

[39] The revenues from the steam heating consumers are not sufficient to yield a fair return on the fair value of the property used and useful in serving these consumers. In determining the amount of used and useful property the additional \$250,000 of boiler plant should be considered. No downward adjustment in the rates is, therefore, justified at this time.

Our accountants' audit of the operations of the Buchanan Company,

submitted in this case as Exhibit 12, indicates that the Company's earnings prior to its absorption by the St. Joseph Company averaged \$32,589 a year for depreciation and return. This is enough to yield the Company a fair return on the value of transmission lines. The Buchanan county transmission lines are now a part of the St. Joseph Company, and the operating expenses of these lines are also a part of the operating expenses of the Company, and will be so considered in the adjustment of rates.

An appropriate order in conformance with the above conclusions will issue.

CONNECTICUT SUPERIOR COURT, LITCHFIELD COUNTY

Bertha N. Steele

v.

Clinton Electric Light & Power Company

[No. 8731.]

Rates, § 256 — Schedules — Rule of application.

1. A procedure which a public utility company has applied and enforced and has attempted to apply to a particular customer in connection with the charging of monthly minimum charges for premises normally occupied seasonally, although not shown in evidence to be a rule of the Commission and although disclaimed by the utility company as its own rule, has the force and effect of a rule, p. 149.

Rates, § 81 — Commission jurisdiction — Application of rule.

2. The matter of correctly applying a rule covering the application of minimum monthly charges for premises normally occupied seasonally is within the provisions and purport of General Statutes, § 3598, providing for a ruling by the Public Utilities Commission upon unreasonable failure to furnish service at reasonable rates, p. 149.

Rates, § 7 — Jurisdiction of courts — Conflicting powers of Commission.

3. The Commission must first pass upon a question relating to alleged unreasonable failure of a public utility company to furnish service at reasonable rates before the courts take jurisdiction, p. 149.

CONNECTICUT SUPERIOR COURT, LITCHFIELD COUNTY

Rates, § 5 — Application of statute — Prospective or existing customer.

4. General Statutes, § 3598, providing for a ruling by the Public Utilities Commission upon unreasonable failure to furnish service at reasonable rates, is not restricted in its application to prospective customers as distinguished from existing ones, p. 149.

Damages, § 1 — Premature demand — Failure to appeal to Commission — Service denial.

5. A customer's claim for damages when predicated upon the refusal of a public utility company to furnish service at proper rates should be dismissed when the customer has not first made application to the Commission for relief under the statute, p. 149.

Injunction, § 11 — Premature application — Service denial.

6. An application by a customer for an injunction to prevent a public utility company from refusing service must be denied when the customer has not first made application to the Commission for relief under the statute, p. 149.

[May 25, 1936.]

SUIT for damages and for injunction against electric company for refusal to furnish service; judgment for defendant on complaint and for plaintiff on counterclaim for vexatious suit.

DICKENSON, J.: On May 3, 1935, the plaintiff's son and agent wrote the defendant (Plaintiff's Ex. E) requesting that electricity be turned on at the plaintiff's cottage the following morning stating "my mother is not available to sign your application at the present time. I can state for her that she will pay all proper charges as authorized by the Public Utilities and will abide by all rules and regulations properly made by you." Upon receipt of this letter the defendant the following day installed a meter and commenced service. On May 7, 1935, the defendant sent the plaintiff a bill for \$5 stated to be minimum charges for the preceding four months and the instant one of May. This the plaintiff refused to pay forwarding a check for \$1 for the month of May. In a letter (Plaintiff's Ex. G) dated May 18, 1935, the plaintiff states through her son and attorney "There

is no question but that you are entitled to the minimum charge for the month of May, 1935."

It appears, then, the plaintiff recognizes the right of the defendant to date its charges from the first of the month in which service is commenced but not from the first of the year in any year in which it is commenced.

In his letter of May 3rd the plaintiff's agent asked for service on "plan No. 1" of the defendant. Plan or rate No. 1 was a straight meter rate at 13 cents per kilowatt hour with a minimum charge of "\$1 per month for each month of the year." This the defendant interprets as a calendar year beginning the first day of January preceding the date service is commenced. Upon notice of the objection of the plaintiff to the inclusion of the months of January, February, March, and April in the bill the defendant wrote the plaintiff (Plaintiff's Ex. J) June

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6, 1934, that the only way she could avoid payment for these months was by using the "so-called seasonal rate," which according to the defendant's letter (Plaintiff's Ex. L) called for "a payment of \$9 plus a flat and area charge per month, plus current at the rate of 5 cents, 4 cents and 3 cents per kilowatt hour when house is occupied." In his letter of June 17th (Plaintiff's Ex. M) the plaintiff's agent states "you need not refer again to the seasonal rate . . . Mrs. Steele . . . does not ask for seasonal service."

[1-4] The defendant bases its charge for the months antedating the date of commencement of service upon a so-called "Explanation of Rates Established by the Public Utilities Commission . . ." in paragraph 4 of which it is stated "The calendar year will be taken as the basis for computing twelve monthly minimums for premises normally occupied seasonally." It is not in evidence that this is a rule of the Commission and the defendant disclaims it as its own rule for in its letter of June 6, 1935 (Plaintiff's Ex. J) it says in effect that the Commission has established the rule and it, the defendant, "has to abide" by it.

But it is a procedure the defendant has applied and enforced apparently in other instances and has attempted to apply to the plaintiff. It thus has the force and effect of a rule and the plaintiff has attacked it as such, claiming it to be unreasonable and illegal in her "Second Special Defense."

This brings the matter clearly within the provisions and purport of General Statutes § 3598 providing for a ruling by the Public Utilities Commis-

sion upon unreasonable failure to furnish service at reasonable rates.

That the Commission must first pass upon the question before the courts do seems well established. *Levitt v. Public Utilities Commission*, 114 Conn. 628, P.U.R.1932C, 337, 159 Atl. 878; *Connecticut Co. v. New Haven* (1925) 103 Conn. 197, 213, 130 Atl. 169.

It is the province of the Commission not the court to fix rates and stipulate other conditions of service and operation. *Public Utilities, Pond*, § 946. *Re New York, N. H. & H. R. Co.* (1908) 80 Conn. 623, 70 Atl. 26; *Modeste v. Public Utilities Commission* (1922) 97 Conn. 453, P.U.R. 1923A, 127, 117 Atl. 494.

As to the plaintiff's claim that the statute refers to prospective customers and not to existing ones, while, as she contends, this was the factual situation in *New Britain Gas Light Co. v. Root* (1916) 91 Conn. 134, P.U.R. 1917C, 102, 99 Atl. 559, in neither the statute nor the case is relief restricted to such instances and in *Gallaher v. Southern N. E. Teleph. Co.* (1923) 99 Conn. 282, P.U.R.1924A, 279, 121 Atl. 686, the plaintiff was a customer of the Public Utility Company.

[5, 6] As both the plaintiff's claim for damages and for equitable relief are predicated upon the refusal of the defendant to furnish power it is found she is entitled to neither, not having first made application for relief under the statute.

As to the counterclaim for vexatious suit it appears the plaintiff was honest in her contention and believed herself damaged.

Judgment is directed for the defendant on the complaint and for the plaintiff on the counterclaim.

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Re Arkansas Louisiana Gas Company

[Docket No. 13-A.]

Interstate commerce, § 23 — What constitutes — Natural gas — Sale from interstate pipe line.

1. The sale, distribution, and delivery of natural gas to large industrial customers and distributing companies in the state is not a transaction in interstate commerce, but is a local business subject to local regulation, when the gas is produced or purchased in another state, brought into the state through pipe lines, and delivered to such customers through an interconnected pipeline system, laterals, and spurs—the gas not being earmarked, labeled, intended for, or identified in any particular way for any particular customer, p. 151.

Interstate commerce, § 37 — Powers of state — Local distribution — Natural gas.

2. The business of supplying natural gas brought into the state through interstate pipe lines to a large number of pipe-line industrial customers is a local business subject to state regulation, p. 151.

Interstate commerce, § 7 — What constitutes — Place of contract as a factor.

3. The place of the execution of a contract for the sale and delivery of natural gas brought into the state from another state is not conclusive in determining whether the sale and delivery is an interstate or intrastate transaction, p. 161.

Public utilities, § 19 — What constitutes public service — Special contracts.

4. The sale and delivery of natural gas by a public utility pipe-line company to industries of its own selection under contract is not exempt from regulation, since a public utility cannot be considered a public utility with respect to certain classes of its consumers and as a private corporation with regard to certain others, p. 162.

Commissions, § 36 — Jurisdiction — Pipe-line sales of gas — Industrial customers.

5. Sales of natural gas to pipe-line customers are not sales at wholesale exempt from Commission regulation, p. 163.

Interstate commerce, § 7 — What constitutes — Extent of business.

6. The quantity of articles moving in commerce has no weight in determining what is or is not interstate commerce, p. 163.

Procedure, § 36 — Stare decisis — Decisions of Supreme and state courts.

7. A decision of the Supreme Court of the United States as to what is or is not interstate commerce is binding upon the Commission, and the decision of the supreme court of another state is not, when there is irreconcilable conflict between the decisions, p. 163.

Pines and penalties, § 8 — Excusable dereliction — Failure to file schedules.

8. The fact that a public utility company is guilty of a dereliction in not notifying the Department of its intention not to file schedules covering service of gas to pipe-line customers is not sufficient to warrant the Department in taking steps to enforce a penalty when there is a bona fide

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issue raised as to Commission jurisdiction, since everyone should be able to litigate a bona fide issue without incurring a penalty for doing so in the event he is unsuccessful, p. 164.

[April 30, 1936.]

CITATION of public utility company for failure to file schedules for natural gas service; utility directed to file schedules.

APPEARANCES: H. C. Walker and Moore, Gray, Burrow and Chowning, Attorneys, for Arkansas Louisiana Gas Company.

By the DEPARTMENT: The Department, on April 13, 1935, acting under the authority vested in it by § 11 of Act 324 of the acts of the general assembly of Arkansas, approved April 2, 1935 (Acts of 1935, page 895), issued its general order numbered 13 requiring every public utility doing business in Arkansas, as defined in § 1 of said act, to file with the Department, on or before June 1, 1935, schedules showing all rates respectively established by, or for, each such utility and collected or enforced by it on April 2, 1935.

[1, 2] The Arkansas Louisiana Gas Company (hereinafter referred to as the respondent), a Delaware corporation, was, on April 2, 1935, and ever since has been, doing business in Arkansas as a public utility in the natural gas business. Pursuant to said order the respondent filed schedules showing its charges for all natural gas sold and delivered in Arkansas, except that delivered to some forty industrial consumers of large quantities of gas, and to five companies purchasing gas for resale and distribution to consumers in Arkansas. For convenience, the customers receiving gas for which

no schedules of charges were filed, will be hereinafter referred to as pipeline customers.

On November 4, 1935, the Department issued its citation requiring the respondent, upon a date therein fixed, to show cause why it should not be specifically ordered and directed to file schedules showing charges for gas sold and delivered to the pipe-line customers, and why it should not be proceeded against for the collection of the penalties provided for in § 61 (b) of said Act 324 for failure to comply with General Order 13.

Within the time fixed the respondent filed a response alleging that the sale and delivery of gas to each of its pipe-line customers is a transaction in interstate commerce and is not subject to regulation by the state of Arkansas and, therefore, it cannot be required to file with the Department schedules showing charges for such gas. Thereupon the Department set the cause for hearing and upon the date fixed the respondent appeared, introduced, examined, and cross-examined witnesses, and later filed a brief.

The respondent owns natural gas acreage in northern Louisiana and in the Clarksville field in Arkansas, and produces gas from the acreage in each state. The respondent owns and operates a pipe line extending from the

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Clarksville field to Little Rock and by means of this line supplies six or seven of its own city distribution plants with gas produced in that field. In addition to supplying gas to its own distribution plants respondent sells gas from that field to Empire Southern Gas Company, Arkansas Western Gas Company, and the Little Rock Gas & Fuel Company. Each of these companies resells and distributes the gas so purchased to consumers through city distribution plants. All of the gas produced in the Clarksville field is transported, sold, distributed, and consumed exclusively in Arkansas.

During the hearing the respondent filed schedules showing charges for gas produced in the Clarksville field and sold and delivered to Empire Southern Gas Company and Arkansas Western Gas Company.

The gas produced by respondent in Louisiana is, along with gas purchased in that state, turned into a pipe-line system owned and operated by respondent and by means of rock pressure, or compressor stations, strategically located, forced under high pressure ranging from 150 to 200 pounds per square inch, to points of consumption or delivery for resale to consumers, in the states of Arkansas, Louisiana, and Texas. The respondent owns and operates three pipe lines and leases and operates another, all of which are laid across the line between the states of Arkansas and Louisiana. In the record these lines are identified on plats found on page 1 of Exhibit 2 and page 14 of Exhibit 4 as lines A, C, H, and K. Line C was not used for transporting gas into Arkansas at the time of the hearing and had not been for some time prior thereto;

therefore, no further reference will be made to Line C.

Line A crosses the Arkansas-Louisiana line some eight or ten miles east of a point where the states of Arkansas, Louisiana, and Texas join. This line extends in a northeasterly direction from the state line crossing, to the southwestern corporate limits of the city of Little Rock. Line H is not owned, but is leased and operated by the respondent and crosses the line between the states of Arkansas and Louisiana some fifteen or twenty miles east of Junction City, Arkansas, and extends in a northwesterly direction to what is designated on said plats as Crusader Station No. 1 in Union county, Arkansas. Line K crosses the line between the states of Arkansas and Louisiana a few miles east of where said state line is crossed by Line H and extends in a northwesterly direction to the Barton Compressor Station located a short distance north of the city of El Dorado, and continuing thence in a northwesterly direction to the city of Camden, Arkansas. By means of line E, extending from the Trees Compressor Station located on line A near Emmett, Arkansas, in a southeasterly direction to Barton Compressor Station, and by means of line E-1 (in reality an extension of line E), lines A, H, and K are interconnected.

Lines A, E, H, and K constitute the principal or primary transportation system of respondent in South Arkansas. Laterals or spurs have been built from these lines for the purpose of serving industries and city distribution plants along and, in some instances, far removed from the location of said transmission lines. All gas trans-

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ported into Arkansas by respondent moves through one or more of said lines, or laterals, or spurs thereto, in reaching a place of consumption. By means of said lines gas is transported and delivered to the gateway of more than fifty city distribution plants in Arkansas owned by the respondent, approximately 318 rural customers along the lines, and to the pipe line customers.

In addition to the lines hereinabove described, there is in what is called the El Dorado district, a vast number of lines, primarily constructed and now generally used, to distribute gas to oil wells and petroleum industries located in this area and not to transport gas beyond or through it. A proper conception of the concentration of lines in this area can only be had by reference to, and a study of, the plat on page 14 of Exhibit 4. These lines are shown upon an enlarged section of the plat.

All of the gas transported by respondent from the state of Louisiana into the state of Arkansas is consumed in Arkansas, with the exception of a relatively small amount consumed by citizens in Texarkana, Texas, and Junction City, Louisiana, served through city distribution plants.

The gas moves across the Arkansas-Louisiana state line through each of lines A, H, and K for the purpose of serving the respondent's customers in Arkansas. At times the principal portion of this demand is supplied through line A; at other times through either, or both, line H or K. When the principal supply of gas is brought into Arkansas through line A a portion of it is diverted into line E and carried to the El Dorado district, and when

the principal supply is carried through either or both, line H and K, a portion of the gas is diverted through line E into line A. The lines in Arkansas are filled at all times with gas under high pressure, in readiness to serve as needed. The movement, volume and pressure of the gas in the pipe line are directly governed by the use of appliances owned by consumers irrespective of whether said consumers are served directly through a tap off of a pipe line or some spur thereof, or through a city or town distribution plant.

The following colloquy between an examiner for the Department and Mr. Hamilton, valuation rate engineer and assistant secretary of and a witness for the respondent, details the method of distribution of any given quantity of gas crossing the state line into Arkansas: *A.* I object to the term "broken up." Let's put it this way, a portion of the quantity is diverted at each tap. *Q.* The quantity then that is transmitted across the state line comes to the first tap and a portion is diverted and withdrawn from the remainder? *A.* At the first tap across the state line a portion is drawn off and delivered. *Q.* And you go farther up the line and another quantity or portion is diverted? *A.* That is true.

There are 415 customers in Arkansas served through taps on lines A, E, H, or K, and their laterals or spurs, if we treat each city or town distribution plant as a customer. These consist of 318 rural consumers, 54 of respondent's city distribution plants, and the pipe-line customers consisting of 40 industrial consumers, 2 city distribution plants owned by corporations affiliated with the respondent and

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one independently owned city plant.

Line A has 141 taps in Arkansas between the state line and Little Rock, line H has 117 taps, line K has 99 taps, and line E has 23 taps. While it is true that not all of these taps were in use at the time of the hearing, they all have been used at some time or they would never have been made. At the time of the hearing approximately 100 of them were not in use or not assigned directly to consumers.

In the operation of the system respondent employs what is known as a gas dispatcher who, by reason of experience and consultation of weather reports and other available data, is able to estimate with reasonable accuracy the demands for gas, of not only the system in Arkansas, but in Louisiana and Texas, and accordingly directs the movement of gas in or into the three states. At the time of dispatching the gas he, nor any one else, knows what the demand of any particular customer is, or will be, and he only undertakes to supply sufficient gas to meet the entire system demand.

The gas supplied to each pipe-line customer is supplied under a contract signed by respondent at its general office at Shreveport in the state of Louisiana. To an extent not disclosed by the record, each of these contracts provides for a minimum charge, or a charge for readiness to serve, without regard to the quantity of gas consumed. While these contracts may vary as to the charges for gas and in other immaterial respects, they all provide that the title to the gas passes to the customer at the outlet side of the meter installed upon his premises, and do not require the customer to take any specific quantity of gas within any

given time. He is merely required to take gas in sufficient quantities to supply the individual requirements of his distribution plant or industrial plant, as the case may be. If any customer's plant happens to be shut down and is not operating, no gas is delivered to him. These contracts further provide that domestic customers, hospitals, schools and such customers as involve the element of human comfort shall be given preference to respondent's gas supply. Each of the contracts also provides that it is subject to the orders, rules, and regulations by duly constituted authorities having jurisdiction over either buyer or respondent. There is no actual sale or delivery of gas until such time as the consumer through his own appliances turns the gas to his own burner tips. No gas is sold or delivered to corporations owning and operating distribution plants until the consumers thereof, by means of their own appliances, turn gas to their burner tips. The respondent will serve any prospective pipe-line customer who is financially able to pay for the service. The respondent bases its charges for gas delivered to the pipe-line customers largely upon the cost of competitive fuels, irrespective of the cost of service. However, it attempts to secure such a price from each of said customers as will give it something more than the actual out-of-pocket expense of the service.

The tap through which city distribution plants receive gas from the pipe line is known as the city gateway. At each tap through which distribution systems and rural and pipe-line customers receive gas, there is installed a pressure regulator which reduces

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the pressure of the gas from that in the pipe line to 8 or 10 pounds for city distribution and some pipe-line customers, and as low as 8 or 10 ounces for other pipe-line and rural customers. Irrespective of the pressure at which gas is metered and delivered to the city gateway or consumers, it is billed at a base pressure of 8 ounces above a standard of 14.4 pounds atmospheric pressure. The many rural domestic customers served directly from the pipe line are served under schedules and at the rates prevailing for the same class of consumers served by the nearest city or town distribution plant, and ordinarily the city or town distribution plant employees read the meters and make and collect the bills for the gas consumed by these rural customers.

The Arkansas Power & Light Company, one of the pipe-line customers, takes large quantities of gas used as a fuel under steam boilers in its electric generating plants in Little Rock and Pine Bluff. Gas at both points is delivered to the power company through a city distribution plant. At Pine Bluff the respondent owns and operates the distribution plant, while that at Little Rock is owned and operated by the Little Rock Gas & Fuel Company, an affiliate of respondent. The respondent charges the distribution plants with all gas passing through their gateway needed to supply their customers and the Arkansas Power & Light Company, and credits each plant with the gas delivered to the power company. The distributing company at Little Rock is paid 1 cent per thousand cubic feet for all gas thus delivered to the power company at that point.

Three of the pipe-line customers are corporations separately engaged as public utilities in supplying natural gas by means of city distributing plants to the citizens of Little Rock, Hot Springs, and Camden. These companies are, respectively, the Little Rock Gas & Fuel Company, the Consumers Gas Company, and the Camden Gas Company. Part of the gas sold to the Little Rock Gas & Fuel Company is produced in the Clarks-ville field in the state of Arkansas and transported and delivered exclusively in that state. All of the gas delivered to the Hot Springs and Camden companies is produced in and transported from the state of Louisiana.

The remainder of the pipe-line customers are consumers of gas in industrial plants of various character located in rural territory and are not served by any facilities used in distributing gas through local distribution plants.

During the first eleven months of 1934 the respondent transported into Arkansas from Louisiana and sold and distributed 15,582,012,000 cubic feet of gas, of which 8,730,616,000 feet were sold to pipe-line customers and 6,851,396,000 feet were delivered to respondent's distribution systems. It is the sale of this 8,730,616,000 cubic feet of gas which the respondent contends is not subject to regulation by the state of Arkansas because of the commerce clause of the Federal Constitution. Other facts will be referred to in the findings.

Finding

There is little, if any, conflict in the testimony in this case. Therefore, a proper solution of the issues depends not upon correctly reconciling conflict-

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ing evidence, as is often the case, but upon the conclusions to be drawn from established facts and a correct application of the law as announced by the courts.

The Supreme Court of the United States, early in the history of the development and expansion of the natural gas business, in the case of *West v. Kansas Nat. Gas Co.* (1911) 221 U. S. 229, 55 L. ed. 716, 31 S. Ct. 564, 35 L.R.A.(N.S.) 1193, held that the transportation of natural gas from one state into another is interstate commerce. This rule has been followed by national and state courts in a long list of cases too numerous to mention. However, the question before the Department is not whether the transportation of natural gas is interstate commerce. The question is: Is the sale, distribution, and delivery in Arkansas of gas transported from Louisiana under the facts in this case a transaction in interstate commerce?

The *West Case* and those following it are conclusive that in determining when natural gas is in interstate commerce or when it loses that character, if once in that commerce, we must apply the rules that have been promulgated in making the same determinations with respect to any other article of commerce. While it is not always an easy matter to determine what is, or is not, interstate commerce or when that commerce ends and intrastate commerce begins, a proper solution of these questions is less perplexing if we keep in mind that, "commerce among the states is not a technical legal conception, but a practical one, drawn from the course of business," (*Swift & Co. v. United States* [1905]

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196 U. S. 375, 398, 49 L. ed. 518, 25 S. Ct. 276), and that what falls within intrastate or interstate commerce can only be determined by a practical consideration of the circumstances and methods of the established course of business. *Foster-Fountain Packing Co. v. Haydel* (1928) 278 U. S. 1, 73 L. ed. 147, 49 S. Ct. 1; *Rearick v. Pennsylvania* (1906) 203 U. S. 507, 51 L. ed. 295, 27 S. Ct. 159. Chief Justice Taft, in delivering the opinion of the court in *Atlantic Coast Line R. Co. v. Standard Oil Co.* (1927) 275 U. S. 257, 72 L. ed. 270, 48 S. Ct. 107, said: ". . . that the determination of the character of the commerce is a matter of weighing the whole group of facts in respect to it."

Every article, at some time after being transported from one state into another for sale and consumption therein, must necessarily lose its interstate character and become subject to state regulation.

In 7 Enc. U. S. Sup. Ct. Rep. 298, is found a very clear and succinct statement of the rules to be deduced from the decisions of the U. S. Supreme Court as follows: "The general rule is that as long as an article imported remains in the hands of the importer in the original and unbroken package in which it was imported, it is protected by the commerce clause of the Constitution from interference of state laws, and that it is only when the original package has been sold by the importer or has been broken by him, or has otherwise become mixed with the common mass of property in the state, that it becomes subject to state legislation."

In the case of *May & Co. v. New Orleans* (1900) 178 U. S. 496, 508,

44 L. ed. 1165, 20 S. Ct. 976, imported merchandise was packed for shipment in cartons which were in turn packed in large boxes. The large box and not the cartons was held to be the original package; and in speaking of the effect of opening the large box for the purpose of sale and delivery of the cartons the court said: "In our judgment . . . when the box or case was opened for the sale or delivery of the separate parcels contained in it, each parcel of the goods lost its distinctive character as an import and became property subject to taxation by the state as other like property situated within its limits." In the case of *Commonwealth v. Paul* (1892) 148 Pa. 559, 24 Atl. 78, a merchant received a 10-pound pail of oleomargarine shipped him from another state into Pennsylvania; the pail was broken and from its contents a sale of 2 pounds was made. The supreme court of Pennsylvania held that the opening of the pail was a breaking of the original package in interstate commerce and that, therefore, the sale of the contents of the pail was subject to regulation by the state of Pennsylvania.

The respondent contends that the original package theory was developed in connection with imports from other countries rather than with respect to transportation of merchandise across state lines. As to the origin of the theory respondent is correct, but the principal has been extended generally to the transportation of merchandise from one state to another. Irrespective of the extent to which the courts have applied the original package theory to commerce among the states, all of them that

have had occasion to pass upon the question have applied it to the sale, distribution, and delivery of natural gas transported from one state to another. *State ex rel. Caster v. Flannelly* (1915) 96 Kan. 372, P.U.R. 1916C, 810, 152 Pac. 22; *West Virginia & M. Gas Co. v. Towers*, 134 Md. 137, P.U.R. 1919D, 332, 106 Atl. 265; *East Ohio Gas Co. v. Tax Commission* (1931) 283 U. S. 465, 75 L. ed. 1171, 51 S. Ct. 499. In each of the above cases the court held that the original package of gas transported from one state to another was broken when the gas was turned into a city distribution plant. These cases cannot, however, be construed to hold that the original package of gas in interstate commerce may not be broken at some other point in its movement from the state line to the consumer.

The pipe-line system of respondent in Arkansas consists of four main lines, to wit: A, E, H, and K, and hundreds of service taps, spurs or laterals constructed and used for the purpose of distributing the gas transported from Louisiana and delivering portions of it to city or town distribution plants and to industrial and rural consumers not within reach of such plants. There are 141 taps on line A, 117 on line H, 99 on line K, and 23 on line E. Extending from each of these main lines are many smaller lines exclusively constructed and used for the purpose of distributing and delivering gas to industrial and rural consumers and city plants. There are between 50 and 60 distribution plants, 40 or more industrial consumers, and more than 300 rural consumers served from this pipe line system. This is more customers, opening, and taps

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than many town distribution plants have. In fact, a study of the pipe-line system of respondent in South Arkansas shown on the map on page 14 of Exhibit 4 will disclose no material difference between the pipe-line system in Arkansas and any ordinary town or city distribution plant except in the extent of the territory served, the density of the customers, the size of the pipe, and possibly the quantity of gas consumed by some of the customers.

The original package in the case before the Department consists of the volume or quantity of gas crossing the Arkansas-Louisiana state line within any given time through either of lines A, H, and K. This package is broken and a part of its contents diverted at each tap in Arkansas serving a consumer or city plant. At least one of such taps is upon each of the lines A, H, and K between the Arkansas-Louisiana state line and the point at which gas is diverted to any pipe-line customers; and there are literally hundreds of such taps on each of said lines through which gas is diverted between said state line and the point where it is delivered into the city distribution plants serving Camden, Hot Springs, and Little Rock; the three points at which gas is sold and delivered to distributing companies for resale.

By tracing the course of any quantity of gas crossing the state line from Louisiana into Arkansas through either of lines A, H, or K to the distribution plants at Camden, Hot Springs, or Little Rock, it will be noted that only a small portion thereof will ever be delivered to either of said distribution plants because of the numerous

taps, spurs, and laterals through which gas is diverted at intermediate points.

All of the gas transported by respondent into Arkansas is for consumption therein except a small quantity consumed in Texarkana, Texas, and Junction City, Louisiana, which is distributed through city plants. The gas moving from Louisiana into Arkansas is not earmarked, labeled, intended for, or identified in any particular way for any particular customer. At the time the gas is started on its way from the wells in Louisiana respondent cannot say where any particular part of it will go after it has reached the state of Arkansas, to whom it will go, or when it will be used. At the time it is started from its point of origin the only destination which can be given is the state of Arkansas. It is transported into Arkansas for the purpose of supplying upon demand the customers of respondent in that state and it is only delivered to the customer if, when, and as he desires to make use of it. The title to the gas does not pass from respondent to the customer until he or his consumer, if the customer happens not to be a consumer, turns the gas to his burner tips by means of appliances upon his premises and exclusively within his control. The pipe-line system in Arkansas contains at all times at least 50,000,000 cubic feet of gas under high pressure. Based upon the average daily consumption for the first eleven months of the year of 1934 this is more than twenty-four hours supply of gas. After the pipe-line system in Arkansas is once filled, gas remains in readiness to serve or move forward only as needed. The amount

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of gas crossing from Louisiana into Arkansas is wholly controlled by the amount consumed in Arkansas. In view of the large number of consumers, gas is constantly moving in the pipe line. This is due to the peculiarities of the commodity and the means employed in its distribution.

Shortly after the gas crosses into Arkansas from Louisiana a systematic method of distributing it to the consumer begins and through each of the service taps on either of the lines between the state line and Little Rock portions of it are drawn off and diverted in a sufficient quantity to meet the demands of the intermediate consumers and the remainder is delivered into the city distribution plant at Little Rock.

For all practical purposes the method of distribution of gas in Arkansas would not be different if, instead of a pipe-line system such as we have, there should be located at some central point a tank of the same capacity as the pipe-line system; and by some means this tank was kept constantly filled with gas drawn from the Louisiana fields and the demand of each city distribution plant, pipe-line customer, and more than 300 rural consumers was supplied directly from the tank.

Facts and circumstances analogous to those of the distribution of gas by respondent in Arkansas and identical with the distribution of gas through the supposititious tank system is found in the case of *Atlantic Coast Line R. Co. v. Standard Oil Co. supra*. In that case gasoline, by means of steamers, was transported from a Mississippi river point to ports on the east of Florida; upon arrival at the port the gasoline was pumped through

a pipe line to a storage tank large enough to hold sixty days' supply; from this tank gasoline was loaded into tank cars and shipped upon demand in fulfillment of annual contracts to more than 100 bulk stations in adjacent territory for delivery in smaller quantities to the ultimate consumer; while gasoline was constantly flowing into the tank it was constantly flowing out of it into the tank cars. In that case it was contended that the interstate movement of gasoline did not end until it reached the bulk stations. The court held that such movement for all practical purposes, ended when the gasoline reached the storage tank. In answering the argument that there was a continuous stream of oil from the Mississippi River Point through the tank into the bulk stations in the interior of Florida, the court said: "It may be, as suggested in the argument, that oil is being discharged into plaintiff's receptacles for its storage at the same time that it is being discharged from the storage tanks into storage tank cars for its distribution, but that is not at all inconsistent with its being a closing of an interstate or foreign transportation and a beginning of intrastate distribution." (275 U. S. at p. 271.)

Stripped of all technicalities and viewed in a practical manner, the established facts show that the respondent transports gas from Louisiana and uses its pipe-line system in Arkansas as a reservoir for the purpose of storing and holding the gas in readiness to serve until it is needed for consumption. In doing this the original package transported across the state line is broken and its contents distributed throughout a vast area, where it is

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held in readiness to serve, or moves forward to serve upon the demand of the consumer. The gas transported into Arkansas is, because of its very nature, stored, handled, and distributed to local consumers in the most practical and economical manner.

The respondent, while admitting that the original package in the interstate movement of gas is broken when the gas is turned into a city distribution plant, contends that there cannot be such a breaking of the package by turning gas from the pipe-line system through service or supply lines not a part of a city plant. The respondent undertakes to sustain this contention by saying that there is no such density of customers or multiplicity of pipe in rural territory as is found in a city distribution plant. The distinction between interstate and intrastate commerce can never be based upon the density of population or the juxtaposition of gas pipe. There is no practical difference in respondent's method of distributing gas to its pipe-line and rural customers and the city distribution plants in south Arkansas and that employed in the distribution of gas to consumers through a city distribution plant.

While what has heretofore been said conclusively demonstrates that the sale, distribution, and delivery of gas by respondent to its pipe-line customers is not interstate commerce but is a local business subject to local regulations, there is another rule established by the courts, which, when applied to the facts in the case before the Department, is conclusive that the delivery of gas by respondent to those pipe-line customers who are consumers is a local business, subject to state

regulations. The Supreme Court of the United States held in the case of *Missouri ex rel. Barrett v. Kansas Nat. Gas Co.* 265 U. S. 298, 68 L. ed. 1027, P.U.R.1924E, 78, 83, 44 S. Ct. 544, that: "The business of supplying, on demand, local consumers is a local business, even though the gas be brought from another state and drawn for distribution directly from interstate mains; and this is so whether the local distribution is made by the transporting company or by independent distributing companies. In such case the local interest is paramount, and the interference with interstate commerce, if any, indirect and of minor importance." For later cases following this principal see *East Ohio Gas Co. v. Tax Commission*, *supra*; *Wichita Gas Co. v. Kansas Pub. Service Commission*, 2 F. Supp. 792 P.U.R.1933B, 225, 537.

In no case which we have been able to find has the Supreme Court of the United States, which is, after all, the final arbiter in all matters involving interstate commerce, departed from the principle set forth in the language quoted, and respondent has not called to our attention any such case.

Since all of the pipe-line customers of the respondent in Arkansas are consumers of gas with the exceptions of the three distributing companies, the sale and delivery of gas to those pipe-line customers who are consumers is certainly a local business, subject to local regulation, if any meaning or force whatever is to be ascribed to the language just quoted.

It will be recalled that in addition to the pipe-line customers who consume gas in industrial plants, gas is delivered directly from the pipe line

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to some 300 rural consumers. By filing schedules showing the charges for gas sold and delivered to these rural customers, the respondent admits that the sale and delivery of gas to them is a local business, subject to local regulation. It is indeed difficult to understand upon what theory it can be contended that the sale and delivery of gas to industrial consumers is interstate business, while such sale and delivery of gas to rural consumers from the same pipe line is a local business. The facilities used in serving an industrial consumer are larger than those used in serving the rural consumers, and the industrial consumer will ordinarily use larger quantity of gas than a rural consumer. However, it is not our understanding that the distinction between interstate and intrastate commerce can be based upon the size of the facilities or the quantity of a commodity. If the sale and delivery of gas to the rural consumer is a local business, subject to local regulation, under no theory can it be said that the sale and delivery of gas to an industrial consumer is interstate business.

The respondent delivers the gas to one of its pipe-line customers, a consumer, through the city distribution plants at Pine Bluff and Little Rock. Under the holding of the Supreme Court of the United States in the case of *East Ohio Gas Co. v. Tax Commission*, *supra*, the sale and delivery of gas to this customer is certainly a local business, subject to local regulation.

Part of the gas involved in this case is produced in the Clarksville field and sold and delivered by respondent to the Little Rock Gas & Fuel Com-

pany for resale through its city distribution plants serving Little Rock and North Little Rock. This gas is produced, transported, sold and consumed exclusively in Arkansas and at no time is it ever within fifty miles of the state line, much less does it cross such a line. Therefore, its sale and delivery cannot, under any circumstances, be even remotely connected with interstate commerce.

The Department finds, after giving practical consideration to all the material facts and circumstances established by the proof in this case, that the sale and delivery of gas by the respondent to its pipe-line customers is a local business and subject to local regulation, and that the respondent should be ordered to file schedules showing the charges for the gas delivered to such customers.

[3] The respondent contends that because there has been executed in Louisiana a contract setting forth the terms and conditions under which gas will be delivered to, and taken by, each pipe-line customer, that the transaction is, therefore, interstate commerce. At one time, in determining whether a transaction was inter- or intrastate commerce, a great deal of weight was given to where the contract was made and was to be performed. With the growth and expansion of commerce and the change in the methods of transacting business, the place of the execution of a contract is no longer conclusive in determining the character of commerce. In *Dahnke-Walker Mill. Co. v. Bondurant* (1921) 257 U. S. 282, 66 L. ed. 239, 42 S. Ct. 106, a contract was made and executed in Kentucky providing for the delivery on board cars

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in that state wheat which was known to be for shipment into the state of Tennessee. The court held that the shipment was the controlling factor in that case and that the transaction was one in interstate commerce. In the case of *Federal Trade Commission v. Pacific States Paper Trade Asso.* (1927) 273 U. S. 52, 71 L. ed. 534, 47 S. Ct. 255, a contract was executed in the state of their residence between a wholesaler and a retailer, both residing in the same state, for the sale, purchase, and delivery of paper. The wholesaler, in order to comply with the terms of his contract, caused the paper to be delivered to the retailer from a mill outside the state. The court held the transaction was one in interstate commerce, notwithstanding the place of the execution of the contract.

Furthermore, these contracts for gas are not different in substance from the contracts involved in the case of *Atlantic Coast Line R. Co. v. Standard Oil Co. supra*. In that case approximately 95 per cent of the oil sold by the oil company in Florida was on contracts made before the oil was shipped from its point of origin. They were for a period of one year and stipulated for average monthly deliveries. In actual practice "shipments to consumers were accommodated to their needs as under requirement contracts." The contracts in the case before the Department are nothing more or less than requirement contracts and cannot change what would otherwise be a local transaction to one in interstate commerce.

The question of whether commerce is interstate or intrastate must be determined by its essential character,

not by mere billing or forms of contract. *Atlantic Coast Line R. Co. v. Standard Oil Co. supra*. It is not within the power of the parties by the form of their contract to convert what is a local business, subject to state control, into an interstate business. *Browning v. Waycross* (1914) 233 U. S. 16, 58 L. ed. 828, 34 S. Ct. 578.

[4] The respondent further contends that because it has never held itself out to serve any and all industries, and sells only to industries of its own selection from its pipe-line system, that the sales of gas to its pipe-line customers are not subject to regulation. The same question was before the supreme court of Arkansas in *Arkansas Nat. Gas Co. v. Norton Co.* 165 Ark. 172, P.U.R.1924E, 675, 263 S. W. 775, and the court there held that a public utility could not be considered a public utility with respect to certain classes of its consumers and as a private corporation with regard to certain others; that the company was required to supply all persons and corporations along the lines of its mains with natural gas without discrimination.

A public service corporation is required to supply service equally to all who offer to comply with its rules, if it supplies one industry located upon its pipe line, under similar circumstances and conditions it cannot lawfully refuse to supply another.

A like question was before the supreme court of North Carolina in the case of *Salisbury & S. R. Co. v. Southern Power Co.* 179 N. C. 330, P.U.R. 1920D, 560, 102 S. E. 625, and the court held as a general proposition that when a public service corporation voluntarily enters the field for supply-

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ing a commodity to persons or corporations it thereby becomes subject to the provisions of the law that it must extend the same treatment and service to all persons and corporations who stand in these same conditions.

[5] Respondent further contends that the sales to the pipe-line customers are sales at wholesale, and, therefore, not subject to regulation. Respondent cites no authority sustaining such a theory and we have been unable to find any. Gas sold and delivered to the pipe-line customers who are consumers is in no sense of the word a wholesale transaction. Webster's New International Dictionary, Second Edition, defines the word "wholesale" as, "of, pertaining to, or engaged in, wholesale trade or business; selling or sold to retailers or jobbers rather than consumers." Winston's Simplified Dictionary, Advanced Edition, defines the word "wholesale" as, "selling as a practice to retailers or middlemen rather than to the ultimate consumer."

[6] Furthermore, the quantity of articles moving in commerce has never been given any weight in determining what is or is not interstate commerce. The sale of a pound of nails, as well as a hundred tons, might be either.

The respondent relies upon the case of State Tax Commission v. Interstate Nat. Gas. Co. (1931) 284 U. S. 41, 76 L. ed. 156, 52 S. Ct. 62, as authority sustaining its position that the sale and disposition of gas to its pipe-line customers in Arkansas is interstate commerce. In the judgment of the Department the case mentioned has no such effect. The facts in the two cases are not similar. In the Tax

Commission Case there was a trunk line of pipe extending from the gas fields in Louisiana through Mississippi and back into Louisiana. The pipe line sold daily to distributors in Louisiana seventy to seventy-five million cubic feet of gas. There were only two taps on the pipe line near Natchez and Woodville in the state of Mississippi. Through these taps from two hundred to five hundred thousand feet of gas were daily withdrawn. The gas flowed continually through the pipe line into and out of the state of Mississippi. In that case there were not hundreds of taps through which hundreds of consumers in Mississippi were served with gas.

[7] Another case relied upon by the respondent is that of State ex rel. Cities Service Gas Co. v. Public Service Commission (1935) — Mo. —, 13 P.U.R.(N.S.) 61, 85 S. W. (2d) 890, recently decided by the supreme court of Missouri. In this case the court held that the supplying of natural gas upon demand to local consumers which was transported from one state to another was interstate commerce. In the opinion of the court it quoted the language hereinbefore quoted from the opinion of the Supreme Court of the United States in the case of Missouri ex rel. Barrett v. Kansas Nat. Gas Co. *supra*, and then proceeded to ignore it. Since a decision of the Supreme Court of the United States as to what is or is not interstate commerce is binding upon this Department, and the decision of the supreme court of Missouri is not, this Department is of the opinion that it should follow the Supreme Court of the United States rather than that of a state court, especially if

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there is irreconcilable conflict between the decisions.

[8] We have disposed of all of the issues raised by the citation and response except that of whether the Department should direct the initiation of proceedings against respondent to enforce the penalties prescribed by § 61 (b) of said Act 324 because of its failure to comply with General Order No. 13 in not filing schedules covering service to the pipe-line customers as required by said order.

In promulgating General Order No. 13 the Department acted administratively and it did not, and under the statute it was not required to, grant a hearing before issuing a valid administrative order.

The respondent, however, is entitled to present to some tribunal the question of whether the provisions of the order are in all respects valid and effective as to it or as to any class of its business in Arkansas. Everyone should be able to litigate a bona fide issue without incurring a penalty for doing so in the event he is unsuccessful. While the respondent is guilty of a dereliction in not notifying the De-

partment of its intention not to file the schedules covering the service of gas to its pipe-line customers, still this fact is not, in the opinion of the Department sufficient under all of the facts and circumstances to warrant it in taking steps to enforce a penalty.

It is therefore considered and

Ordered:

1. That the Arkansas Louisiana Gas Company be, and it is hereby ordered and directed to file with the Department within thirty days from and after the date in the caption hereof, schedules in the form and of the date required by General Order No. 13 covering all gas sold and delivered by it to its pipe-line or industrial customers in Arkansas.

2. That the Department do not take or direct the institution of any action against respondent with a view of enforcing any penalties prescribed by said Act 324 because of the failure of the respondent to comply with said General Order No. 13, and to file schedules covering the service of natural gas to its pipe-line or industrial customers within the time prescribed by said order.

MISSOURI SUPREME COURT, DIVISION NO. 2

State ex rel. to Use of Panhandle Eastern Pipe Line Company

v.

Public Service Commission et al.

[No. 33118.]

(— Mo. —, 93 S. W. (2d) 675.)

Interstate commerce, § 23 — What constitutes — Natural gas.

1. Natural gas acquired by a pipe-line company outside the state and trans-

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ported through the state, and also through laterals to industries and distributing utilities, moves in interstate commerce through the state and such interstate movement continues until the gas enters the distribution system of the local distributing utility for distribution under low pressure for resale at retail to local consumers, p. 165.

Interstate commerce, § 37 — Powers of state — Natural gas — Pipe lines.

2. The furnishing of natural gas by an interstate pipe-line company to distributing utilities is not intrastate service subject to the provisions of the state Public Service Commission Law, p. 165.

[March 21, 1936.]

APP^{EAL} from circuit court judgment sustaining Commission order requiring a natural gas pipe-line company to furnish service at reasonable rates to a municipal plant; reversed. Respondents' motion for rehearing stricken from files for failure to comply with the rules April 23, 1936. For Commission decisions see P.U.R.1933A, 256; P.U.R.1933B, 202.

APPEARANCES: G. J. Neuner and C. R. Kirkbride, both of Kansas City, for appellant Panhandle Eastern Pipe Line Co.; D. D. McDonald, General Counsel, of Jefferson City, for respondent Public Service Commission; C. R. Boyd, City Attorney, of Fulton, for respondent Fulton, Mo.

BOHLING, Commissioner: Relator, Panhandle Eastern Pipe Line Company, a Delaware corporation, prosecutes this review of an order of the Public Service Commission of the state of Missouri, respondent, requiring relator "to furnish natural gas to the city of Fulton at reasonable rates."

[1, 2] Relator, duly authorized to do business in Missouri, owns and operates a main pipe-line system which commences in the state of Texas and runs through the states of Oklahoma, Kansas, Missouri, Illinois, and into Indiana, and transports through said pipe line and laterals therefrom nat-

ural gas acquired, in so far as here involved, in the states of Texas and Kansas for the purpose of sale in large quantities to local distributing gas utilities at wholesale and industrial plants. The diameter of the main line pipes is 24 inches in Kansas, 22 inches in Missouri, and somewhat smaller in Illinois and Indiana. Among the distributing utilities purchasing natural gas from relator in Missouri is Central States Gas Utilities Company, a corporation, owning and operating local gas distribution systems in several cities and towns in Missouri. Said Central States Gas Utilities Company is a subsidiary of relator and the corporate officials of said subsidiary and relator are in several instances the same individuals. The delivery of natural gas by relator to local distributing utilities and industries is effected by means of laterals from its main line. The gas is compressed to a pressure of 450 pounds by means of a compressor station for transmission

through the state of Missouri. On the laterals an appliance exists near the main line to reduce the pressure of the gas in the laterals. At the termini of the laterals are measuring and regulator stations, and the local distributing utility (or industry) takes delivery of the gas at such measuring station under high pressure and in large quantities, after which the pressure is reduced and the gas made fit for resale at retail in the local distribution system (or in case of service to an industry for use for industrial purposes). Service from relator's mains is rendered under contract only; and relator owns none of the facilities beyond the outlet side of the measuring meter.

The Harbison-Walker Refractories Company, a corporation, has a plant located at Fulton, Mo., and contracted with relator for a supply of natural gas for industrial purposes. Relator constructed a 6-inch lateral pipe line from its main pipe line to a point outside the corporate limits of said city of Fulton, where a measuring and regulator station was constructed for delivery of gas to said Harbison-Walker Refractories Company. After unsuccessful efforts on the part of the city of Fulton to effect an agreement with relator for a supply of natural gas, so acquired and so transported by relator, for distribution and resale at retail by said municipality as a local municipally owned and operated gas utility, proper proceedings were instituted before respondent to compel relator to render such service to said municipality as such utility.

The opinion of the Public Service Commission, handed down with the order aforesaid, recognized that the underlying issue was whether the pro-

posed order would constitute an interference with the interstate commerce of defendant, but held that relator "and its subsidiary, the Central States Gas Utilities Company, constitute one common enterprise, which enterprise is actually engaged in the local distribution of gas in intrastate commerce in the state of Missouri" and, therefore, subject to the provisions of the Public Service Commission Law (Chap. 33, and Art. 4, Chap. 33, § 5121 et seq., and §§ 5188-5206, R. S. 1929 [Mo. St. Ann. § 5121 et seq., p. 6531 et seq., and §§ 5188-5206, pp. 6604-6632]). The Commission also made reference to relator's exercise of the right of eminent domain in the acquisition of the necessary rights of way for its main and lateral pipe lines, and the fact that relator served industrial consumers.

The case of *State ex rel. Cities Service Gas Co. v. Public Service Commission* (1935) — Mo. —, 13 P.U.R.(N.S.) 61, 85 S. W. (2d) 890, 891, rules the instant case. The Central States Gas Utilities Company, the above-mentioned subsidiary of relator, is not engaged in the local business of distributing and selling gas to consumers in the city of Fulton; and the issue in the instant case does not involve the question of principal and agent or vendor and vendee as was involved in said *Cities Service Gas Company Case*. In the instant case, as in the *Cities Service Gas Company Case*, the relator transports gas owned by it, has condemned private property to acquire the necessary rights of way for the construction of its pipe lines, and is engaged in serving industrial plants, as well as local gas utilities, making de-

liveries outside the corporate limits of municipalities. In said Cities Service Gas Company Case, local gas utilities, subsidiaries, with said relator, of Cities Service Company, a corporation, contracted, with the approval of said relator, to furnish gas to industrial plants located within the corporate limits of municipalities served by certain of said local gas utilities; and this court by a four to two vote held said Cities Service Gas Company was not subject to the provisions of the Public Service Commission Law in the rendition of service to industries in the cities wherein service was rendered by said interrelated gas utilities. The judges participating in said cause unanimously ruled that said Cities Service Gas Company was not subject to the provisions of the Public Service Commission Law in the rendition of service outside the corporate limits of said cities to industrial plants; because said relator "is not engaged in intrastate business by directly selling and distributing industrial gas to consumers in this state outside of these cities, and that the order of the Commission in so holding imposes a direct burden upon interstate commerce within the meaning of the Commerce Clause of the Federal Constitution (Art. 1, § 8, cl. 3)." It would be a work of supererogation to add to what is there said. We merely mention, for the convenience of the reader, the law as applied to the facts of the instant case: The commodity—natural gas—acquired and transported as aforesaid in relator's pipe lines moves in interstate commerce through this state, and said interstate movement continues until said gas enters the distribution system of the local distributing

utility for distribution under low pressure for resale at retail to local consumers. So far as this record discloses, the work of relator to effect delivery as aforesaid is an incident to its interstate business as distinguished from the work upon the gas after delivery to effect its proper distribution for consumption by local consumers at retail (or to industrial plants for industrial purposes). Until such time as the natural gas here involved enters the distribution system of the local utility, the movement remains interstate; and the service thus rendered is not subject to the provisions of said Public Service Commission Law. State ex rel. Cities Service Gas Co. v. Public Service Commission, *supra*, and cases there cited. See State Tax Commission v. Interstate Nat. Gas Co. (1931) 284 U. S. 41, 44, 76 L. ed. 156, 157, 52 S. Ct. 62, 63; Pennsylvania v. West Virginia, 262 U. S. 553, 596, 67 L. ed. 1117, 1132, P.U.R.1923D, 23, 43 S. Ct. 658, 32 A.L.R. 300; Peoples Nat. Gas Co. v. Pennsylvania Pub. Service Commission, 270 U. S. 550, 554, 70 L. ed. 726, 729, P.U.R.1926D, 187, 46 S. Ct. 371. This, respondent apparently conceded upon oral argument in said Cities Service Gas Company Case, *supra*, with reference to a lateral line transmitting gas to a local distributing utility at Lexington, Mo., and this court stated it could perceive no distinction between such service and service outside the corporate limits of municipalities to industrial plants.

The judgment of the circuit court is reversed, and the cause remanded with directions to enter a judgment annulling the order of the Public Service Commission.

MISSOURI SUPREME COURT, DIVISION NO. 2

Cooley and Westhues, Commissioners, concur.

opinion by Bohling, Commissioner, is adopted as the opinion of the court.

PER CURIAM: The foregoing All of the judges concur.

SOUTH DAKOTA BOARD OF RAILROAD COMMISSIONERS

Re Northwestern Bell Telephone Company

[Supplemental Order No. 6112.]

Rates, § 558 — Telephones — Hand-set charges.

An extra charge of 25 cents per month, to be continued as to each subscriber for a period of three years, was reduced to 15 cents.

[June 12, 1936.]

INVESTIGATION of equipment charges for hand-set telephones; charges reduced.

By the BOARD: Upon the 6th day of June, 1933, this Commission made its order, directing that the charge, to be made by the Northwestern Bell Telephone Company for hand-set instruments be in the sum of 25 cents per month, which charge was directed to be discontinued as to each subscriber who should have paid such charge on each hand set for thirty-six continuous months in the same telephone exchange, said order becoming effective October 1, 1933.

It now appears upon reexamination of said matter that the situation has undergone gradual change with the increased introduction of hand-set instruments, and that the prospect is that the displacement of other types of instruments by hand-set instruments will continue. It further appears that as the hand-set type of instrument becomes more general in use the addi-

tional charge for the same should be reduced from time to time.

On the other hand, we are satisfied that under existing conditions the charge should not be entirely eliminated. The facts referred to in our previous order concerning the necessity of preventing a wholesale replacement of desk sets by hand sets with the resulting loss to the company and the ultimate burden thereof upon the telephone users, still obtain to a considerable extent, and it is apparent that some charge should be continued.

We therefore conclude that the present charge of 25 cents per month for a period of three years should now be reduced; and sufficient cause for this order appearing;

It is therefore *ordered*, that the present charge for hand sets of 25 cents per month now made by the Northwestern Bell Telephone Compa-

RE NORTHWESTERN BELL TELEPHONE COMPANY

ny be reduced to 15 cents per month, said payments to continue as to each subscriber for the same period of time and subject to the same conditions and provisions as are now provided in the existing and filed tariffs of said company.

It is *further ordered*, that said reduced charges shall become effective from and after July 1, 1936, it appearing that said reduction is in the interests of telephone subscribers in this state and of the public.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Borough of Ligonier

v.

The Peoples Natural Gas Company

[Complaint Docket No. 10318.]

Discrimination, § 25 — Rates — Customer charge and minimum charge.

Discrimination is not shown by the fact that a gas company imposes a customer charge of 60 cents per meter per month in one community, while in near-by communities it imposes a minimum charge of \$1 per meter per month.

[April 20, 1936.]

COMPLAINT against customer charge of gas company; complaint dismissed.

By the COMMISSION: This complaint filed August 3, 1934, by the borough of Ligonier, Westmoreland county, alleges that the customer charge of 60 cents per meter per month made in Ligonier as compared to the minimum charge of \$1 per meter per month in Derry, Latrobe, and other near-by boroughs, under Tariff P.S.C. Pa. No. 16, is unjust, unreasonable, and unjustly discriminatory.

Respondent's Tariff P.S.C. Pa. No. 16, in effect at the date of inquiry, became effective March 14, 1933, superseding tariffs P.S.C. Pa. Nos. 12, 13, 14, and 15, which superseded tariffs P.S.C. Pa. Nos. 10 and 11. Respond-

ent's Tariff P.S.C. Pa. No. 10, issued August 18, 1924, effective September 20, 1924, divided the territory served into a Pittsburgh zone, which included all towns and villages served west of and including Derry and Blairsville, a second zone which included Ligonier, New Florence, and all communities and territory served east of Derry and west of Johnstown, and a third zone consisting of all the territory served east of Johnstown. The last two zones were together known as respondent's eastern zone. This eastern zone, in which Ligonier is located, was designated District No. II by respondent's P.S.C. Pa. No. 12,

PENNSYLVANIA PUBLIC SERVICE COMMISSION

effective August 7, 1931, and retained that designation under P.S.C. Pa. No. 16, effective March 14, 1933.

Respondent's Tariff P.S.C. Pa. No. 10 canceled the minimum charge of \$1 per month per meter for each customer in the eastern zone and substituted therefor a customer charge of 60 cents per meter per month. Complaints against Tariff P.S.C. Pa. No. 10 were filed prior to its effective date. These complaints (Complaint Docket No. 4542, et al.) were consolidated into a general complaint, hearings were held and, by a decision on November 20, 1928, the complaints were dismissed: *Pittsburgh v. Peoples Nat. Gas Co.* (1928) 9 Pa. P.S.C. 423, 431, P.U.R.1929B, 526, 535. The Commission there said:

"With reference to the increase in rate charged customers residing in the company's eastern zone, which extends as far east as Altoona and Hollidaysburg, over that charged to customers in the Pittsburgh zone, under P.S.C. Pa. No. 10, it appears from the evidence that the added cost of such eastern zone service is justified.

This complaint relates solely to the customer charge in Ligonier which was approved by this Commission in 1928. The burden of showing unjust and unreasonable discrimination under the law is upon complainant. As stated by our superior court in *Alpha Portland Cement Co. v. Public Service Commission* (1925) 84 Pa. Super. Ct. 255, 271:

" . . . So that even prior to the enactment of the Public Service Company Law, both of the appellate courts of this state recognized the right of a public service company to charge dif-

ferent rates for its service rendered under different conditions, and held that the difference in rates is not unlawful as applied to different classes of patrons where the business interests of the company are responsible for the establishment of different rates, and where the lower rate to one patron does not injuriously affect the other patron in the conduct of his business. The decisions of our own courts are in harmony with what had been decided by the Supreme Court of the United States in construing the Interstate Commerce Act. (See *Cincinnati, N. O. & T. P. R. Co. v. Interstate Commerce Commission* [1896] 162 U. S. 184, 40 L. ed. 935, 16 S. Ct. 700.) The Public Service Company Law removes all doubt which might have existed under the decisions in this commonwealth as to the considerations which may govern the utility in classifying its service, patrons and rates. The act expressly authorizes the classifications of patrons and rates, as well as service, and in making such classification, the taking into account of 'any other reasonable consideration.' The determination of what is and what is not reasonable is left primarily with the utilities in the exercise of their power 'generally to manage their important interests upon the same principles which are regarded as sound, and adopted in other trades and pursuits': *Cincinnati, N. O. & T. P. R. Co. v. Interstate Commerce Commission*, cited."

Complainant shows only that Ligonier is located 6 miles from Derry and 10 miles from Latrobe, and that Ligonier has a customer charge of 60 cents per meter per month while

LIGONIER v. THE PEOPLES NATURAL GAS COMPANY

Latrobe and Derry, the towns nearest to Ligonier in respondent's territory, have no such charge.

Respondent shows that Ligonier, in 1933, had 535 consumers with an average consumption for that year per consumer of 45,080 cubic feet. The corresponding average consumption for Latrobe was 69,280 cubic feet, and for Derry 80,220 cubic feet. If a minimum charge of \$1 per month per meter were substituted for the customer charge of 60 cents per month, the cost of service to all consumers using less than 667 cubic feet per month would be increased, al-

though for consumers using more than 667 cubic feet per month the cost of service would be decreased.

This complaint is lodged solely against the customer charge made in Ligonier, which is the only essential element of difference between the rates in Ligonier and in the other near-by towns. The Commission cannot find that the customer charge now complained against constitutes unjust or unreasonable discrimination under the circumstances; therefore,

Now, to wit, April 20, 1936, it is *ordered*: That the complaint be and is hereby dismissed.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Re Triangle Company of Pennsylvania

[Application Docket No. 34101.]

Consolidation, merger, and sale, § 65 — Application — Proper parties.

1. The proper party to seek the approval of the Commission for a proposed sale of public utility property is the proposed vendor rather than the proposed vendee, p. 172.

Consolidation, merger, and sale, § 36 — Qualification of vendee.

2. Authority to sell property to a corporation cannot be approved unless and until the corporation has secured from the Commission a certificate of public convenience evidencing approval of its right to do business within the state, p. 172.

[April 13, 1936.]

PETITION for approval of sale of property; application dismissed.

By the COMMISSION: The Triangle Company, a partnership composed of J. B. Montgomery, Bert Noble, and S. H. Morgan, copartners, is now doing business as a natural

gas public service company in certain townships of Allegheny county under a certificate of public convenience from this Commission.

It appears from the record that J.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

B. Montgomery and S. H. Morgan, two members of the partnership, together with John H. Montgomery, son of J. B. Montgomery, have organized the Triangle Company of Pennsylvania, a Delaware corporation, for the purpose of taking over the copartnership business of the Triangle Company and operating the same as a corporation. Bert Noble, the other partner of the Triangle Company copartnership, desires to withdraw from the business and dispose of his interest to the two remaining partners.

In this proceeding the Triangle Company of Pennsylvania, the proposed vendee, has filed with us under the provisions of Art. III, § 3 (c) and Art. V, §§ 18 and 19 of The Public Service Company Law, an application for the issuance of a certificate of public convenience evidencing approval of the sale, assignment, and transfer of the property, equipment, business, contracts, leases, franchises, and all other property of the Triangle Company copartnership.

[1, 2] Under the facts of record, the Commission is constrained to withhold approval. The Public Service Company Law (66 PS, § 182) Art. III, § 3 (c), under which this application is filed, provides as follows:

"Upon like approval of the Commission first had and obtained, as aforesaid, and upon compliance with existing laws, and not otherwise, it shall be lawful—

"(c) For any public service company to sell, assign, transfer, lease, consolidate, or merge its property, powers, franchises, or privileges, or any of them, to or with any other corporation or person."

14 P.U.R.(N.S.)

In view of this section of The Public Service Company Law, the proper party to seek the approval of the Commission for the proposed sale is the proposed vendor, the Triangle Company copartnership, rather than the proposed corporate vendee, the Triangle Company of Pennsylvania. Furthermore, the Triangle Company of Pennsylvania, applicant, has not obtained from this Commission approval of the right to do business within this commonwealth, as required by Art. III, § 3 (b) of The Public Service Company Law (66 PS, § 182) which provides:

"Upon like approval of the Commission first had and obtained, as aforesaid, and upon compliance with existing laws, and not otherwise, it shall be lawful—

"(b) For a foreign public service company, upon compliance with existing laws, if any there be permitting such foreign company to exercise its powers and franchises within this commonwealth, to obtain the right to do business within this commonwealth."

The proposed sale to the newly formed foreign corporation cannot be approved unless and until the corporation has secured from this Commission a certificate of public convenience evidencing approval of its right to do business in Pennsylvania, and the proposed vendors have secured like approval of the sale of their property; therefore,

Now, to wit, April 13, 1936, it is *ordered*: That the prayer of the petition be refused and the application dismissed.

The March of Events

FPC Files Report

THE Federal Power Commission has compiled another rate series "No. 5" which presents a comparative rate schedule of publicly and privately owned electric utilities. The report summarized and classified rate reports previously published by the commission to facilitate such comparison. In order to evaluate properly the differences found in the rates of private and public utilities, the commission sets forth in its report other factors such as taxes paid by private utilities and taxes and contributions of municipal utilities and "free service" rendered by them.

Complete data regarding payment of all forms of taxes and regarding operating revenues for 1933 and 1934 were received from 1216 privately owned utilities, which represent, on the basis of total operating revenues and taxes paid, approximately 98.5 per cent of the entire industry. Total taxes paid by reporting private electric utilities in 1933 amounted to \$206,988,870, which was 12.5 per cent of their total base revenues for that year, the report stated. In 1934, total taxes paid by those utilities increased to \$239,773,260 and constituted 14.1 per cent of the total base revenues.

The commission also has transmitted to Congress its report on rural electric service, which treats with rate schedules and monthly bills for rural service, rural line extension policies, construction practices and estimated costs, actual mileage, and investments in rural lines and farm service.

Public Utility Control Debated

THE case for and against regulation of public utilities by the Federal government was debated on July 15th by Basil Manly, vice chairman of the Federal Power Commission, and Siegfried F. Hartman, corporation attorney of New York, before the round table on "Business and Government" in the Institute of Public Affairs meeting at the University of Virginia, Charlottesville.

Mr. Hartman contended "if Federal regulation is necessary, and can be justified legally, let us have regulation by law and not by men above the law." Mr. Manly pictured conditions which existed in the electric utility field when the present administration assumed office, then outlined regulatory measures adopted and gave statistics to show, he said, that money invested by public utilities is not being adversely affected by the policies initiated by this administration.

Mr. Hartman questioned if it was necessary, wise, or safe "to attempt to correct recognized

abuses in the field of public utilities by measures which, if not vindictive in purpose, appear at least to be calculated to impair the efficiency, financial integrity, and the immeasurable potentialities for national and social service of this great industry."

Mr. Hartman explained he was not questioning the need for utility regulation to protect the consumer, conserve, and develop natural resources, and to protect the investor. But he argued that under the Federal Constitution the regulation of these utilities is a state and not a Federal function.

To Visit Projects

THE Third World Power Conference traveling technical program will include the Tennessee Valley Authority as one of the great American developments to be visited at the close of the conference. Some 200 of the world's most distinguished engineers will visit the valley on a series of technical studies which are to precede and follow the meeting at Washington, D. C., September 7th to 12th of the World Power Conference.

One party will visit the valley before the conference, September 2nd to 4th, and another will visit the valley September 21st to 23rd. The first party will be made up of a group studying the hydraulic sources of power and the larger implications of hydroelectric development, and the second will study the major construction developments. The first tour will center around Knoxville, Tenn., and the second will enter the valley by way of Memphis. A stop is planned at Sheffield, Ala., with studies in the vicinity.

Judging PWA on Jobs Basis

PRESIDENT Roosevelt, it was learned last month, now is disposed to measure the value of PWA projects solely on the basis of the number of persons they will absorb from relief rolls, and for that reason has failed to approve a list calling for the expenditure of \$100,000,000 submitted a month ago by Harold L. Ickes, Public Works Administrator. The list, said to constitute the first batch of projects to be undertaken in various sections of the country through Federal grants to match funds available from state, county, or private sources under the PWA provision of the deficiency appropriation bill, presumably would not be acted upon until Mr. Roosevelt returned from his vacation.

As the result of the President's decision, Secretary Ickes has called upon applicants for such grants to report exactly how the re-

lief rolls would be lightened. According to reports, the development does not set pleasantly with Administrator Ickes, nor those who stood by him in Congress in the effort made there to authorize use of the PWA revolving fund up to \$300,000,000 for the purpose of continuing useful public works.

Again Hits Holding Company Law

REPRESENTATIVE Samuel B. Pettengill, of the third Indiana district, who led the fight in the House of Representatives against the Senate draft of the Public Utility Holding Company Bill which became a law, was reported last month to have not recanted. He still holds the law to be unconstitutional, unreasonable, confiscatory, and injurious.

In prepared remarks on the legislation, the South Bend representative recalled the reasons for his opposition. First, it was unnecessarily destructive; second, the worst of the evils of holding companies were on their way out; third, a better, less drastic, and certainly constitutional method of regulation was available, and fourth, the legislation was clearly unconstitutional.

Bonneville-Coulee Argument

ACCORDING to recent reports, more trouble is brewing in the Northwest in connection with Bonneville power rates. John Page, acting reclamation commissioner, has announced that he intends levying on Bonneville dam a tribute to aid Grand Coulee. Under the theory that Grand Coulee, when and if built, will impound water which will increase the potential power generated at Bonneville, Commissioner Page contends that

Bonneville should pay something to Grand Coulee for this water. This argument, it was stated, will be presented to the Federal Power Commission when the latter starts studies to determine the rate to be charged at Bonneville.

The Federal Power Commission at this writing had not decided whether to hold open hearings when studying rates, or informal conferences with individuals and groups interested. Both policies may be pursued, the commission indicating that a number of people are expected to present their views on what the rate should be and what costs should be considered in basing the rates.

However, no one knows, least of all the reclamation service, when Grand Coulee will be built high enough to impound waters which can be released to increase power lower down the stream. This, say opponents of the idea, may put Bonneville in the position of paying money to Grand Coulee for ten or fifteen years without deriving any benefits.

May Give Utility to Workers

THE likelihood that the Mexican government would attach the \$40,000,000 Mexican Light and Power Company and its five subsidiaries increased last month as negotiations to settle the strike of 3,000 employees were deadlocked. It was learned that executives of the company, controlled by Canadian and Belgian interests, had received broad hints the properties would be turned over to the labor syndicate's operation unless the company promptly acceded to the workers' demands.

The employees were insisting on salary increases and other financial benefits aggregating about \$277,000 a year and new labor contracts, which the company's lawyers asserted would be tantamount to giving the employees control of the company.

Alabama

Utility Accuses TVA

THE Alabama Power Company, in a suit filed July 18th in the circuit court of Cullman county against the Cullman County Electric Membership Corporation, stated that the power company had heretofore been granted certificates of convenience and necessity to render service in the Cullman county area along with many other sections of the state and that the Cullman corporation through its own agents and those of the Tennessee Valley Authority was engaged in unfair competition and practices against the power company.

The bill further stated that the Cullman corporation had not complied with the laws of the state permitting it to engage in the utility business and, on the other hand, that the Alabama Power Company had complied with all

such laws and was actually engaged in rendering service in many of the areas which the Cullman corporation proposes to serve.

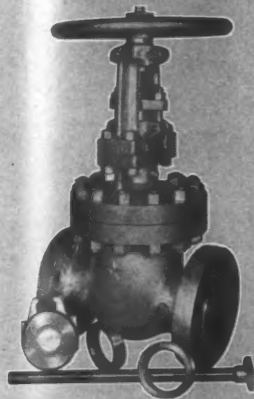
Takes Over Power Line

THE electric utilities distribution system in Florence was transferred from private to public ownership and operation on July 15th. The contract in which the Alabama Power Company sold the system to the city of Florence was signed in the office of the company by its authorized officials and Mayor Lee Glenn of Florence.

In consideration of the sale of its properties in Florence to the city, the latter delivered \$220,000 of 4 per cent bonds maturing serially over a period of twenty-five years and

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secured by a mortgage on the property. The bonds are to be serviced out of operating revenues of the system.

Working capital was obtained through a bond issue to be sold and serviced out of operating income.

Arizona

Asks Tax Reduction

CHARGING that the assessment valuation of its many properties for taxation purposes was excessive and discriminatory, the Central Arizona Light and Power Company had on file in U. S. district court last month an action petitioning for a reduction of \$106,759.25 in 1935 taxes. The utility contended in a complaint that its properties in Maricopa county were assessed for all taxation pur-

poses in 1935 at \$6,347,210, while the figure should have been \$4,166,544.20. The organization's 1935 tax bill was \$301,456.75, but the complaint stated it should have been only \$203,697.50.

The county supervisors, as members of the county board of equalization, the county treasurer and assessor and the state tax commission, as members of the state board of equalization, were named defendants in the action.

California

Upholds Commission Evaluation

THE state railroad commission's \$288,700 evaluation for Southern California Edison's properties in Tulare City was upheld last month by the state supreme court. The utility company had protested the figure, declaring it should be paid about \$300,000 for the property, which the city of Tulare seeks to take over as a municipal utility.

The supreme court decision stated that it took into consideration the fact that rates must be fixed for a utility as a whole and that returns must often be greater in urban property than in rural, in order to even up the cost to consumers.

The decision was held to produce a favorable ruling by the state commission for the city of Fresno in its efforts to condemn electrical transmission and power service lines in that city.

Frisco Distribution Plans

INVESTMENT of \$43,700,000 to create a municipal distribution utility to serve the whole of the city of San Francisco was proposed in one of three new plans submitted July 16th to the board of supervisors by Utilities Manager Cahill. The three schemes were designed as alternate ways for the city to comply with Interior Secretary Ickes' ruling that under the Raker Act, the city must go into the electric distribution business if it would use Hetch Hetchy power. The plan mentioned was reported to be the only one of the three likely to meet approval of the city's board of supervisors.

The plan proposed the purchase of the private company's distribution system for \$39,700,000; construction of the Red Mountain

Bar power house at a cost of \$1,125,000; the investment of \$2,000,000 in office, shop, warehouse, and equipment, and of \$175,000 in materials and supplies, and the setting up of \$700,000 for working cash.

It was reported by local observers that there was little chance that the citizens would at this time approve of such an outlay of funds. San Francisco's citizens were said to be impatient with Secretary Ickes' efforts to force the city into the utility business and that there was increasing sentiment in favor of seeking an amendment to the Raker Act from the next session of Congress.

Spurn Power Pact

IN an effort to escape what they feared was an attempt on the part of the Los Angeles Bureau of Power and Light to gain control over the future development of their electrical systems, the citizens of Glendale and Burbank last month ceased negotiations with the power bureau for transmission of their share of Hoover dam power. Mayor Olson of Glendale indicated that the cities may take their case to the courts to have the rights of the two municipalities determined.

Trouble developed, officials of the two cities said, when, after a verbal agreement had been reached with the power bureau as to items to be included in a supplemental contract covering delivery of power to them by the bureau, two important requirements, not included in the verbal agreement, were included in a draft by power bureau attorneys.

The two items were (1) substitution of a new method of auditing and accounting which the municipalities considered would be detrimental to their interests, and (2) a proposal requiring the two cities to obtain written con-

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THE LOAD OF A THOUSAND FACTORIES

THE electric power bill for many a modern factory is \$40,000 a year. Multiply by 1000, and you get \$40,000,000. That is the estimated new revenue obtained through General Electric apparatus and appliances connected to power-company lines during the one year, 1935.

Of all, G-E load-building is a continuing process. This year, again, thousands of salesmen—industrial and transportation engineers, lighting specialists, heating specialists, lamp and appliance and air-conditioning distributors and dealers—will do

an even bigger load-building job. Up, up, up, will go kilowatt-hours.

Our point is this: For every dollar that power companies invest in General Electric equipment, they receive a full dollar in equipment value. In addition, G-E load builders bring to power companies many more dollars in revenue each year than all the dollars they invest in General Electric equipment. Certainly the purchase of G-E equipment is the most profitable investment you can make with your equipment dollar.

96-272B

GENERAL ELECTRIC

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sent of the power bureau for any future development of their electrical systems when

they may require new sources of electrical energy.

District of Columbia

Challenges Federal Project

THE constitutionality of public works financed by the National Industrial Recovery Act was challenged in the District of Columbia Federal district court on July 15th by the Potomac Electric Power Company. The company protested against condemnation proceedings which forced it to move a power substation to make room for the new Interior

Department Building. Its attorneys asked a review of a decision on May 25th by the court of appeals affirming a condemnation decree by district court.

The condemnation jury awarded the company \$23,167 for the lot on which the substation was located, although the power company contended that an investment "in excess of \$180,000" was destroyed by the forced removal.

Georgia

TVA Current in Georgia

TENNESSEE Valley Authority electric power for the first time flowed into Georgia and Hamilton county, Tenn., on July 14th, with completion of the rural lines of the

North Georgia Electric Membership Corporation.

At present only about 70 miles of lines will carry TVA power. This, however, is but the first unit of 425 miles of transmission lines to eight north Georgia counties.

Illinois

Asks Lower Utility Rates

PROTESTS against high water and light rates in Belleville were made last month by Mayor George Remmsnyder of Belleville in letters written to the Illinois Light and Power Company and the East St. Louis and Interurban Water Company, characterizing present rates as "exorbitant."

The mayor asked for a conference with each utility on the question of rates, pointing out an agreement now would be cheaper for all parties than litigation before the state commerce commission. The Belleville city council recently authorized an appeal to the commission for a reduction. The mayor said he expected a reduction in rates for city purposes as well as for domestic users.

Indiana

Municipal Plant to Cut Rate and Taxes

REVENUE from the Richmond municipal electric light plant will make possible a rate reduction by September and will permit the city to apply \$310,000 of light plant funds to tax reduction in 1937, D. C. Hess, superintendent, announced last month.

Mr. Hess estimated that earnings of the plant, which for the first five months of this year were 12.3 per cent greater than the corresponding period in 1935, would total \$474,694.

Rejects Freedom Plea

JUDGE Sumner Kenner, of Huntington circuit court, on July 16th rejected the habeas corpus petition of Mayor C. W. H. Bangs and Max Pinney and Clayton Brown, city employees. The three sought release from jail, where they were being held for refusal to obey a court order directing them to discontinue electric service being supplied by the municipal plant to domestic and commercial consumers.

In remanding the men back to jail the judge said:

"This litigation has been in court almost



No. 10

Aug. 13, 1936

Pennsylvania's Page

The coil maintains its shape under short circuits

THE tendency toward low impedance in distribution transformers brings to the front the importance of a transformer coil which maintains its shape under heavy short circuits. Pennsylvania's Circular Coil offers this distinct advantage, because, being circular in shape, it is radially and axially balanced against short circuit stresses.

The proper distribution of stresses eliminates excessive strain in any part of the coil and prevents stretching of wire and possible cracking of insulation.

*All Pennsylvania Transformers
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two years at great expense to the litigants and taxpayers. Its various angles have resulted in the filing of more than a dozen law suits and the city has been demoralized."

Meanwhile, preparations were underway by

the city council to pass, for the third time, an ouster ordinance over Mayor Bangs' veto.

Passage of this ordinance was to be followed immediately by the filing of fifteen specific charges against the mayor.

Iowa

Reject Municipal Plant

THE voters of the city of Perry last month turned down a proposal to construct a

municipal electric light plant at a cost of approximately \$325,000.

The vote was 1,234 against, and 728 for, the proposed construction.

Kentucky

REA Funds Sought

INCLUSION of consideration of an enabling act to make Rural Electrification Administration funds available in Kentucky in the call for the next special session of the state legislature was requested by Ben Kilgore, executive secretary of the Kentucky Farm Bureau Federation, in a letter to Governor A. B. Chandler made public last month.

Mr. Kilgore declared that "269,307 rural homes in Kentucky are without electric service" and that only 3 per cent of the farms have electric power, compared with 53 per cent in California. It appears that under Kentucky

laws REA loans cannot be signed for nor the money obtained until such a measure is passed to legalize local rural electric coöperatives.

Held Liable for Power Tax

MINING companies which collect light bills from their workmen should report their receipts from this source to the Department of Revenue and pay the 3 per cent tax on the gross amount collected, Guy H. Herdman, assistant attorney general, said last month in an opinion given T. E. Mahan, of Williamsburg.

Maine

Quoddy Workers Wind Up Jobs

LIEUTENANT Colonel Philip B. Fleming issued general orders on July 7th which said the "shut-down" of Passamaquoddy bay project activities would be accomplished "progressively but vigorously from this date." Receipt of official notice that no more funds would be made available forced him, Colonel Fleming said, to reorganize the engineers' district into two divisions, namely, an administrative division and a camp and land divi-

sion which is to be in charge of maintenance.

The order said administrative and other office personnel employed in the engineering and operations divisions would be demobilized as rapidly as was consistent with proper handling of records. Colonel Fleming said Quoddy village would be operated as a unit until about September 30th, when all remaining employees would be moved into one selected block of the village which would be operated as long as it was necessary to maintain any force.

Michigan

Accepts Phone Cuts

CESSATION of hostilities between the state and the Michigan Bell Telephone Company was brought about last month when G. M. Welch, president of the public utility corporation, announced provisional acceptance of the state commission's recent order reducing

rates \$1,500,000 a year. At the same time it was announced that a suit in the U. S. district court, pending since 1926, would be withdrawn and for the first time in a quarter of a century there will be no telephone litigation in Michigan. The public utilities commission declared that the company's acceptance was agreeable.

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radio equipped with
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NATIONALLY-ADVERTISED,
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Nationally Advertised - Known to Women

a famous name with a famous name, and sales for the product made easier, quicker, smoother.

Robertshaw speeds the sales of modern gas ranges because its heat-control is known to every woman.

As soon as a woman hears that the range is Robertshaw-equipped, she knows she is buying a combination of the best in modern cookery. She knows that her range selection is a wise one. The name Robertshaw helps you to sell ranges because it is a nationally-known name.

ROBERTSHAW THERMOSTAT COMPANY, YOUNGWOOD, PENNA.

Sell the ranges equipped with

ROBERTSHAW OVEN-HEAT-CONTROL
MORE THAN 2,500,000 IN USE



The one proviso made by the company was that it retain the right to contest the new rates if the revenues under the reductions proved inadequate. The company announced the new rates would be put into effect as soon as it

was feasible and as soon as necessary book-keeping and plant changes could be effected. The commission, it was said, hoped most of the reductions could be made effective as of July 1st.

Minnesota

First to Build Rural Line

THE first contract for the construction of rural electrification lines under the Rural Electrification Administration in the Northwest was signed on July 13th at Litchfield when representatives of the Meeker Coöperative Light and Power Association signed a contract with the Monroe Electric Company of Chicago, for construction of 125 miles of

rural lines, including the first portion of a project of approximately 420 miles of lines to serve over 1,600 rural customers in Meeker county.

The Meeker project has been a leader in the Northwest in rural electrification work under the REA and was the first project in the Northwest to have its organization forms approved in Washington. The association has 1,600 member shareholders.

Mississippi

Authorizes Power Line

TVA OFFICIALS, last month notified the city of Tupelo that a new 110,000-volt electrical line from Muscle Shoals to Tupelo has

been authorized. When completed, the line will insure Tupelo and the northeast Mississippi area using TVA electricity "ample power for all purposes," according to the announcement.

Missouri

Sues to Void Tax

THE Laclede Gas Light Company last month asked the Federal court to declare unconstitutional and void the St. Louis city ordinance which taxes the company 5 per cent of its gross receipts for use of streets for its gas distribution system, on the ground the new tax was "shockingly and unconscionably exorbitant," discriminatory, and confiscatory.

The company's suit, which sought a declaratory judgment against the city, sets out the company has invested more than \$50,000,000 in its plant and distribution system since it was incorporated by an act of the legislature on March 2, 1857. The petition said its franchise and charter, granted under the legislative act, gave the company the perpetual right to lay and maintain its gas lines in the

city and the ordinance sought to levy an additional charge or rental for franchise rights previously granted.

Files Reduced Rate Schedules

THE Union Electric Light and Power Company last month filed with the state public service commission new schedules of rates to apply to wholesale untransformed service, large light and power service, and industrial power service.

The rates apply to St. Louis and outlying cities, and were expected to benefit customers to the extent of \$212,500 a year. The company asked that the rates be made to apply to bills for service rendered through meters read July 15th, and thereafter.

Montana

To Cut Phone Rates

TELEPHONE rates in Butte and Great Falls, effective August 15th, will be reduced 50 cents a month on each instrument by order of the state railroad and public service commission, it was announced last month.

The reduction was the result of negotiations between the commission and the Mountain States Telephone and Telegraph Company and will amount to an annual saving of approximately \$400,000 to telephone users. Corresponding reductions in other cities and towns where the company operates will follow.

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Silvray "Multiplex" Processing controls and directs the light rays toward the surfaces to be illuminated . . . increases effective street lighting from 30 to 50 per cent.

Wherever applied it has noticeably improved the business volume of the community—since people shop more on well lighted streets . . . and, too, has strengthened the position of the Utility in the community by satisfying the increasing public demand for better lighted streets.

that's a Real LOAD BUILDER

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C. H. WHEELER OF PHILADELPHIA



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UNITED STATES ELECTRIC MFG. CORP.

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CHICAGO—323 West Polk St.

Dam Construction Resumed

NEARLY three score Indians on July 13th resumed construction of the Polson dam at the power site near Polson. Renewal of the project was assured when the confederated council of the Salish and Kootenai Indian tribes voted unanimous approval to amendments to the Rocky Mountain Power Com-

pany's license to build the power source of the Flathead reservation. About 500 men were at work when operations were halted in 1931. Every man now on the job is an Indian.

The amendment which was approved by the Indians provided for electrical energy to be used on Flathead irrigation projects, and was recently authorized by the Federal Power Commission.

Nebraska

Holds Hope for Project

BERT M. Hardenbrook, president of the North Loup river power and irrigation district, stated last month that he was hopeful of a public works allotment soon for construction of the project. Hardenbrook said reports of the PWA power, engineering and legal division, were in the hands of Colonel Horatio B. Hackett, assistant PWA administrator.

He said he believed PWA officials were convinced the revenue bonds which would se-

cure a proposed \$814,000 loan for the project were the best type of security the government could obtain on this kind of work. The bonds would be payable from the funds derived through water rental and power sale. Besides the loan the PWA also has been asked for a \$666,000 grant.

Mr. Hardenbrook said he had been advised that relief demands and drouth conditions "are going to play a large part in the PWA's policy toward projects of this type in the agricultural drouth sections." He stated he was hopeful of early action because of this.

New York

Phones Tapped

INVESTIGATORS under the direction of Paul Blanshard, commissioner of accounts, and Irving Ben Cooper, his special counsel, have tapped the telephone lines of the New York city fire department's telegraph bureau in an effort to break up a stream of illicit calls to fire insurance adjusters, newspapers, and bookmakers, it was learned recently.

Nine of the twenty-three telephone operators assigned to the bureau have been transferred from one borough headquarters to another since June 18th in a drive against the practice, it was learned, but this action has not completely ended it and the investigation will be continued.

It was said that the wire tappers have discovered that about 50 per cent of the unau-

thorized calls go to fire adjusters, about 10 per cent to newspapers, and the remainder to bookmakers or personal friends.

Phone Rates Reduced

THE public service commission on July 9th announced that the Orange County Telephone Company would place reduced rates in effect August 1st, designed to save subscribers \$9,700 annually. The reductions, the commission said, would consist of the elimination of the extra charge for hand-set telephones, cuts in the service connection and move charges, adoption of the modification in intrastate toll rates up to 40 miles, and a cut from 75 to 60 cents in the monthly charge for residence extension stations.

North Carolina

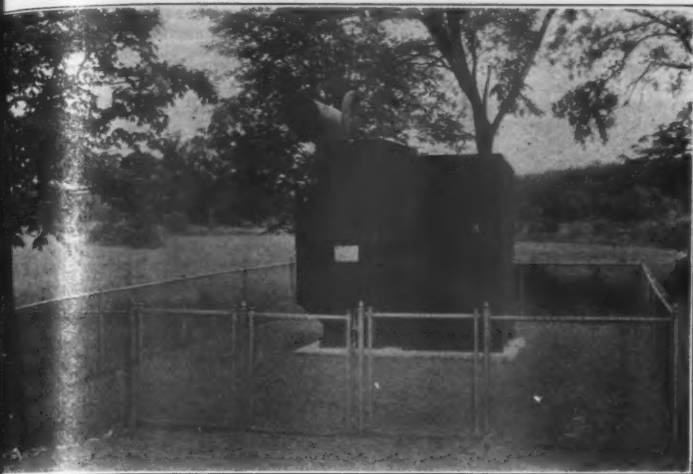
Competitive Controversy

THE first competition between a North Carolina private utility and a Federal-financed cooperative rural electrification project has appeared in Johnston county, Director Dudley Bagley of the state rural electrification authority said last month.

Conflict over the construction of lines in the county between the Johnston county local membership corporation and the Carolina

Power and Light Company of Raleigh was said to be largely the result of some of the residents of the county expressing preference for the private utility lines after both organizations had surveyed projected extensions.

The Federal Rural Electrification Administration has allotted the county committee \$90,000 for the construction of 78 miles of lines, only a small part of the \$300,000 originally sought by the cooperative. However, the cooperative has secured a proposed contract for



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power at wholesale rate from State Utilities Commissioner Stanley Winborne and Washington authorities have approved the agreement. The power would be purchased from the Carolina Company. The Federal authorities were reported to have expressed a desire not to compete with any existing agency.

Seek Rural Electrification

THE 1,200 inhabitants of Harkers' Island off the coast of Carteret county, the source of many news stories in the past due to their remoteness from the mainland, were reported last month to be seeking a closer contact with the state by means of rural electrification.

In a recent letter to Director Dudley Bagley of the state rural electrification authority, it was stated that the people are very much interested in the project. Mr. Bagley has conferred with the Tide Water Company, but the company has replied that the cost of laying a "submarine" cable across the sound to the island is too expensive and mentioned the possibilities of the highway and public works commission constructing a bridge to be used to carry the current.

State Radio System Planned

FINAL decision on the actual allotment of funds for the construction of a statewide short-wave police radio system for the highway patrol and cooperating law enforcement agencies was expected to be made at the regular meeting of the state advisory budget commission sometime during the first week in August. The allotment of funds was to be made from the highway funds and would supplement an undetermined amount available from the regular appropriation to the highway safety division.

Cost of installation, it was said, would run around \$165,000, which includes the best equipment available, and operation costs were estimated at between \$30,000 and \$40,000 a year. Approximately \$100,000 of the installation cost would come from highway funds.

Argues Fairness of Rates

ARGUMENTS as to the fairness of rates charged by the Smoky Mountain Power Company in Bryson city were heard by the state utilities commission last month despite the contentions of the utility's attorneys that the state authorities have no power under the law to regulate the charges there. The municipality wants lower rates.

Former Superior Court Judge Bryson argued the commission had no authority in the case in view of the fact that the municipality owns the property and has merely leased it to the power company. Commissioner Stanley Winborne ruled the commission had the power under state statutes to determine the fairness of the rates charged where "the contract entered into by the municipality and the utility provides the lessee pay to the lessor a certain amount and keep all over and above that amount. . . ." The commissioner also said the matter of actual value of the property would be studied.

This move was contested by the municipality's attorneys on grounds that the power company is not the actual owner of the property and that value should not be considered in rate fixing.

The municipality, which leases the property to the Smoky Mountain Power Company for \$12,500 a year, petitioned the state utilities commission for lower rates, alleging there were certain discriminations between users in the rates now charged.

Ohio

Outside Sale Threatened

POSSIBILITY that the municipal light plant of Columbus may be compelled to relinquish part of its commercial or domestic load in order to supply current for the new \$3,700,000 sewage disposal plant nearing completion was seen by city officials last month.

With the plan for the new \$1,000,000 extension to the light plant securely tied up in the Federal court because of an injunction brought by the Columbus Railway, Power & Light Company, Service Director Llewellyn Lewis was reported not counting on a settlement of this case in the near future. Consequently, plans for the generation of current for the new sewage disposal plant are being prepared and contain a provision that half the current must either be supplied by the light plant or must be purchased from the railway power and light company.

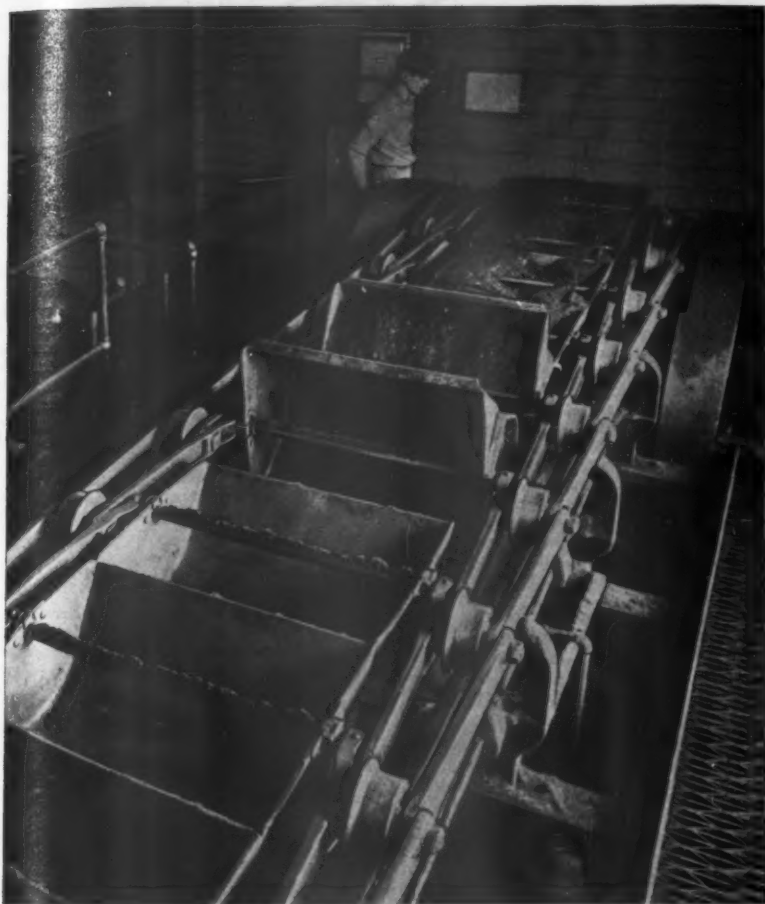
The city administration was expected to take the view that the light plant should provide current for municipal operation needs before selling its surplus to outsiders and, therefore, since the light plant now operates at peak load, it will be necessary for the division of electricity to relinquish part of its customers in order to supply current to the disposal plant.

Commission Order Affirmed

THE Ohio Supreme Court on July 22nd affirmed "in all respects" the order of the state utilities commission directing the Ohio Bell Telephone Company to refund Ohio subscribers \$11,832,264. Six of the seven judges concurred in the decision, the seventh not participating.

The decision climaxed a 12-year battle of

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Ohio telephone users to obtain lower rates and to collect the amounts paid during that period under protest as excessive. The Ohio

Bell Telephone Company was expected to carry the case to the United States Supreme Court.

Pennsylvania

Proposal Contingent on Franchise Rights

THE Harrisburg Railways Company last month made a formal offer to the city council to pay the same 3 per cent gross receipts tax on its motor bus business done in Harrisburg as it has been paying since 1903 on its trolley business within the city, it was disclosed by City Highway Director William J. Fickes.

The offer was contingent on the city council granting to the bus company, officially known as the Transit Company of Harrisburg, the same general franchise privileges as are enjoyed by the Harrisburg Railways Company under an ordinance of September 11, 1903, plus the stipulation that council agrees to permit exchange of bus privileges for existing trolley operating rights.

In addition to offering this gross receipts tax, the Harrisburg Railways Company, which owns the bus company, has offered to give an unannounced stipulated sum of cash to Harrisburg to be used when and as needed for laying asphalt paving where track is removed or altered, and to remove snow from certain specified city streets.

If approved, the calculation of the 3 per cent gross receipts tax would begin as of the approval date.

Motor Board Appointments

CHAIRMAN C. J. Goodnough, of the public service commission, last month appointed Examiners Russell Wolfe, Philadelphia; William E. Best, Pittsburgh, and Thomas M. Kerrigan, Harrisburg, to act as additional al-

ternates on the joint board established by the new Federal Motor Carrier Act. They will represent the commission at hearings before the bureau of motor carriers of the Interstate Commerce Commission.

Seeks Permission to Purchase Utility

PERMISSION to buy the entire capital stock of the Glen Rock Electric Light and Power Company for \$391,631 was sought in a petition of the York Railways Company filed July 15th with the state public service commission. The power company's lines cover Glen Rock and other York county towns and townships adjoining the territory served by the Edison Light and Power Co. The Railways Company owns the common stock of the Edison.

Granting of the application, it was contended, would result in economy and efficiency through joint operation of Glen Rock and Edison service.

Rules on Water Tax

As a result of many inquiries, Secretary of Revenue John B. Kelly on July 8th announced that gross receipts of municipally owned water companies from the sale of water for domestic uses beyond the limits of the municipality are not subject to taxation.

Up to 1935 municipal sales of water were not taxed. The purpose of the amendment of the act of 1935 was to increase rates temporarily and to include municipalities to a limited extent.

South Carolina

Report on Santee Cooper

GOVERNOR Olin Johnston on July 14th made public a report of the South Carolina Public Service Authority which stated none of a \$95,000 Federal allotment for the Santee-Cooper power project had been expended, and that state expenses amounted only to \$9,668 since the authority was founded. The report was sent the governor, as ex officio chairman of the advisory board for the project, by Major Burnet Maybank of Charleston, chairman of the authority.

It covered the 2-year period ending June 30, 1936, and reviewed legislation and litigation leading to the present status of the \$37,500,000 project. The authority was "ready to be-

gin construction of the project" in December, 1935, it said, but four power companies filed Federal court suits attacking it as unconstitutional.

Commission Reopens Case

THE state public service commission last month reopened the Columbia street car substitution case by setting a hearing for early in August on the petition of the Broad River Power Company for the elimination of conditions attached to the commission's order requiring the complete substitution of busses for street cars in the city.

The order setting the hearing was addressed



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to the Broad River Power Company and the city of Columbia, which requested the substitution, and to the towns of Eau Claire and Arden and the North Columbia Land Company which opposed it.

A representative of the commission explained that under a decision of the state supreme court, the commission lacked the authority to change the terms of its own orders so far as findings of fact are concerned without first holding a formal hearing at which all parties of interest may be heard. It was indicated that at least parts of the original order would be modified.

In addition to setting the hearing on the power company's petition, the commission al-

so suspended for the time being a provision of the substitution order setting July 15th as the final date for the power company to file its acceptance of the terms of the order with the commission.

The power company in its petition for revision of the substitution order, asked the elimination of a provision requiring the cash purchase of busses to be used in the service; of a provision that the commission retain the right to rescind its order if any portion of it were adjudged invalid; of a provision requiring the company to agree not to introduce the commission's order in evidence to support any allegation of change in its responsibility to render transportation service.

Tennessee

Files Protest

A PROTEST against a move by the Tennessee Valley Authority to compel the Southern Railway to abandon its 11-mile branch between Vasper and Lafollette, Tenn., was filed with the Interstate Commerce Commission on July 13th by Campbell county and the city of Lafollette, Tenn.

Asserting that a portion of the line will be inundated by rising waters behind Norris dam, the TVA has asked the ICC to compel the Southern to abandon the branch. The South-

ern has objected, contending the government agency should make some arrangement for relocating the line.

The TVA, it was said, has acquired 1,200 pieces of real estate in Campbell county, causing its withdrawal from taxation and resulting in a revenue loss of \$22,000 annually. If the Southern branch were discontinued, it was said, Campbell county would lose an additional \$1,157 of tax revenue each year. The county has a heavy bonded indebtedness, the protest continued, and the loss of this taxable property is a very serious matter.

Washington

Taxi Fares Increased

BEGINNING August 25th Seattle taxicab fares will be increased 5 cents a mile to meet the increased wage scale recently granted by arbitration to the taxicab drivers. A majority of the city council went on record for the fare boost on the plea of major cab companies. Independent operators, said the pay-

raise was possible without an increase to customers.

The present minimum fare of 25 cents, covering the first quarter mile of travel, will stand unchanged.

Riders will be called on to pay 10 cents for each additional half mile of travel instead of the present rate of 10 cents for each additional two-thirds mile.

Wisconsin

Accuses Utilities

WHOLESALE rates, said to be the bugbear of Wisconsin's rural electrification coöperative projects, throttle the progress of the state's REA program, according to Orland S. Loomis, state REA director. In discussing the situation last month, Mr. Loomis insisted that attempts are being made by private electric companies to cripple REA projects.

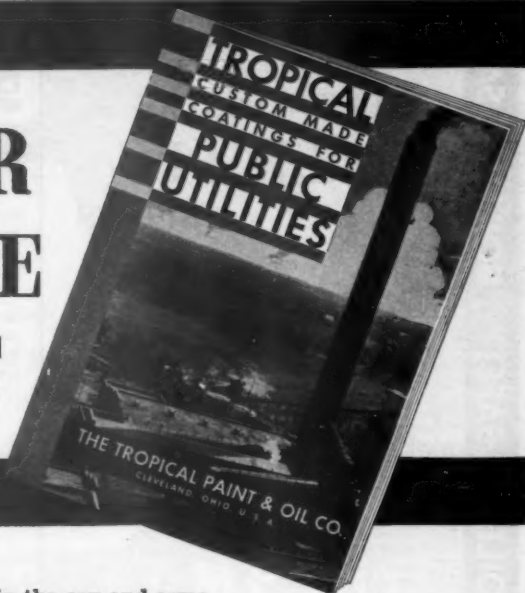
Mr. Loomis said the Dane-Iowa county electric coöperative was "one of the outstanding examples of the failure of a private company to coöperate in bringing electric service to 450 farmers near Middleton." The state

public service commission has ordered an investigation of a wholesale rate asked of the Madison Gas and Electric Company for this project.

In a complaint to the public service commission, Loomis pointed out that the failure of the company to agree to serve this territory has caused the coöperative to be in default upon its loan contract and has caused nearly 500 farmers desiring electricity to remain without it.

Mr. Loomis told the commission "the company is designedly delaying and procrastinating with the purpose of defeating the coöperative effort of these organized farmers."

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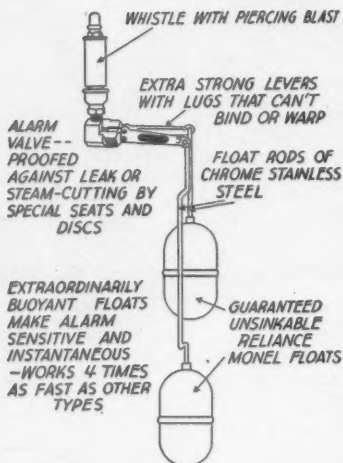
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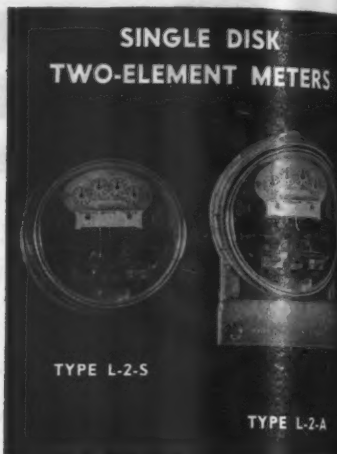
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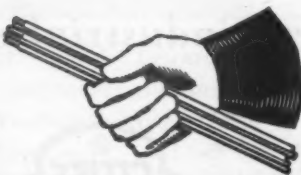
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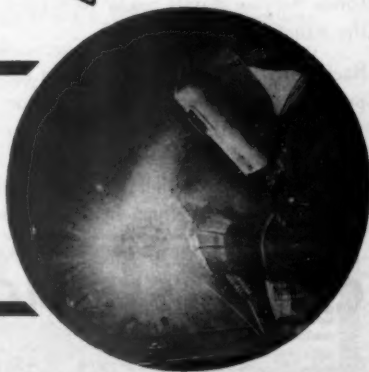
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LINCOLN



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Elliott 27,000-sq. ft. twin water-box surface condenser serving 20,000-kw. turbine in the plant of the Ohio Edison Company at Springfield, Ohio. At the left of the picture, near the floor, in the vertical pipe line, is an Elliott Twin Strainer.

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because it is designed by engineers who have fitted a flexible condenser design to the specific requirements of the installation. Such things as load factor, quality, quantity, and temperature of water available, operating charges, etc., are given careful consideration. In the condenser, the design always points

towards maximum transfer rates, minimum pressure drop, effective cooling of non-condensables, and hot oxygen-free condensate.

That's why Elliott condensers are efficient and why they help to keep power costs down in any plant.

The installation of an Elliott condenser is a guarantee of good condenser performance.

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 PITTSBURGH, PA.



Heat Transfer Department: JEANNETTE, PA.

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for GENERAL UTILITY

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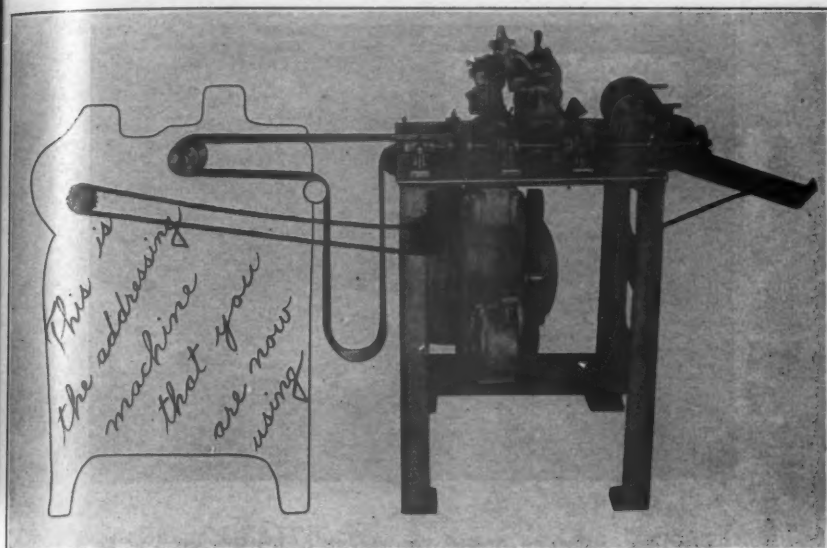
1803 W. Winnemac Ave.,

Chicago, Ill.



BARCO *portable* **GASOLINE HAMMER**

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Here's a Bill Printing Machine that can be used with ANY Addressing Machine

Instead of continually paying money for pre-printed bills, convert your *present* addressing system into a *combination* printing and addressing system. You can readily do it with the

Elliott Bill Printing Machine

This machine will pull blank paper, from rolls, under the addressing head of your present addressing machine to receive the addresses. It will then continue feeding this paper through the printer (shown above at the right), where it is printed on the front and back, scored, dated and chopped off.

With the Elliott Bill Printing Machine you not only save on printing bills, but you speed up your addressing operation, as it is really an automatic feed through the addressing machine instead of a hand feed.

Here is something new, designed to bring the advantages of bill printing to those who do not desire to make extensive changes in their addressing system. The Elliott Bill Printing Machine can be used in conjunction with any model of any addressing machine now used for Utilities' billing and with any kind of an addressing medium.

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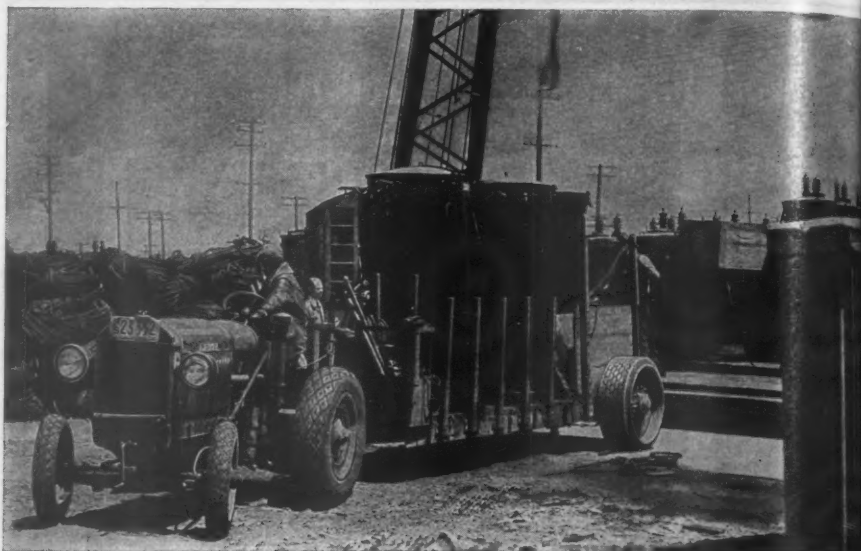
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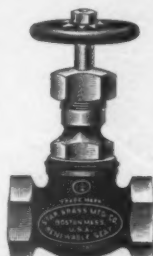
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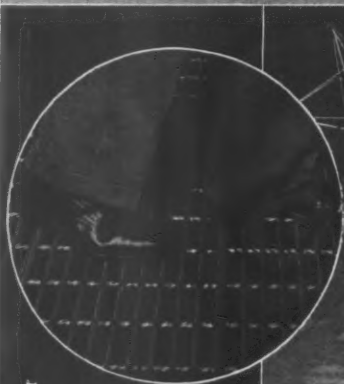
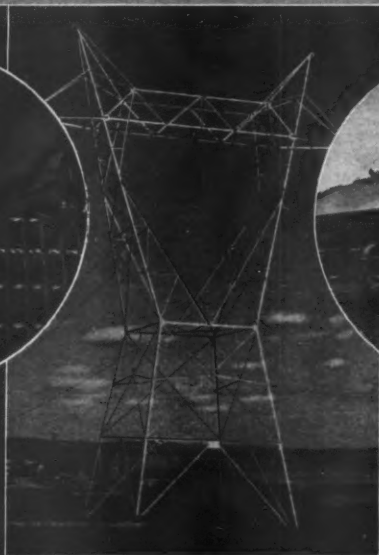


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FOR DEVELOPMENTS IN OIL RESISTANT

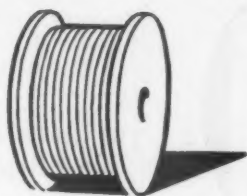
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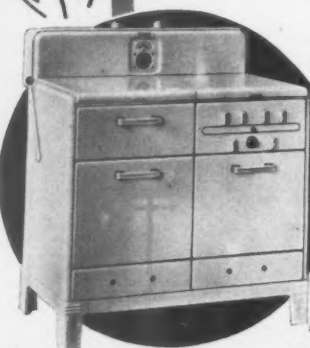


Among the operating economies inherent to A. C. S. R. transmission lines is lower corona loss. The engineering reason is so simple that the plain fact has become an axiom among transmission engineers. Aluminum Company of America, 2134 Gulf Building, Pittsburgh, Pennsylvania.

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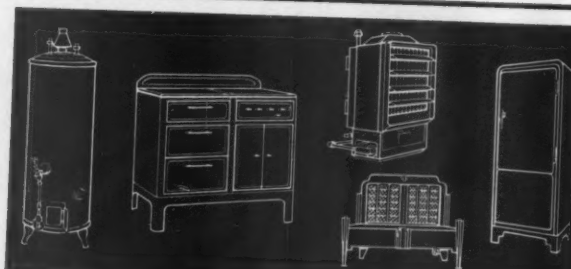
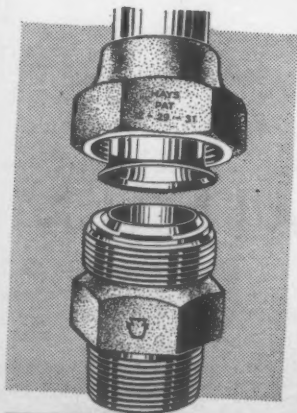
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UNITED STATES POWER PROGRAM

CHART NO. 2



Outline map (17" x 28") showing names and locations of Federal financed power projects. Colored symbols are used to designate types of projects.

This chart covers a survey of the Federal, State and municipal electric developments included in the power program of the United States government. It presents a comprehensive picture of the tremendous scale upon which the Federal government has inaugurated its power program and indicates also the large sums that will be required to complete the work already started.

STATISTICAL TABLES

1. Summary showing total estimated expenditures required for each group of projects, amount of appropriations, loans and gifts and amount expected to be repaid by borrowers.
2. List of Federal projects, giving total estimated cost, amount appropriated, and amount remaining to be supplied to complete work.
3. List of State and District projects, giving total estimated cost, amount allocated by Federal government, amounts of loans and gifts.
4. List of municipalities receiving Federal aid for local plants, with amounts of loans and gifts to each place proposing to establish a plant in competition with, or in lieu of, a private utility now serving the community.

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The Kisco Master "Balanced-Lever" Water Level Switch and Boiler Watchman with Remote Signal Alarm



PROTECTS THE HEART OF YOUR PLANT... THE BOILER

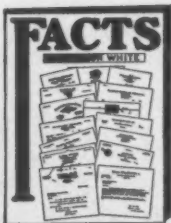
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boosts sales of IRONERS and current (1230 watts per hour)



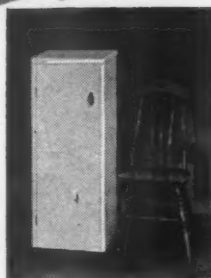
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No. 5100

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AFTER

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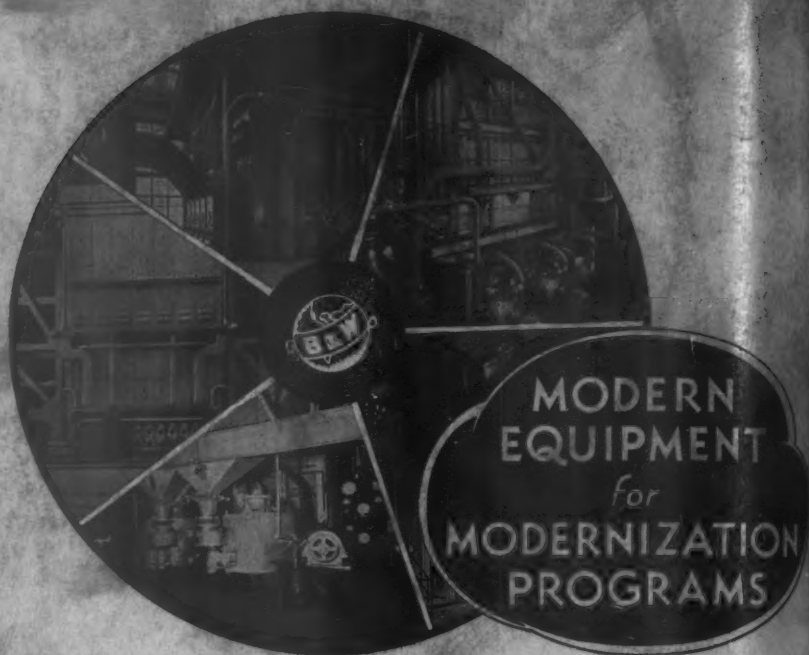
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